



**HAL**  
open science

# How Do Prestigious Universities Remain at the Summit: A Bourdieusian View of their Business Models

Rachel Bocquet, Gaëlle Cotterlaz-Rannard, Michel Ferrary

## ► To cite this version:

Rachel Bocquet, Gaëlle Cotterlaz-Rannard, Michel Ferrary. How Do Prestigious Universities Remain at the Summit: A Bourdieusian View of their Business Models. *British Journal of Management*, 2024, 10.1111/1467-8551.12819 . hal-04518898

**HAL Id: hal-04518898**

**<https://hal.science/hal-04518898>**

Submitted on 24 Mar 2024

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

# How Do Prestigious Universities Remain at the Summit: A Bourdieusian View of their Business Models

Rachel Bocquet,<sup>1</sup> Gaëlle Cotterlaz-Rannard <sup>2</sup> and Michel Ferrary<sup>3,4</sup>

<sup>1</sup>IREGE, University of Savoie Mont-Blanc, 4 Chemin de Bellevue, BP 80439, Annecy-le-Vieux, 74944, France, <sup>2</sup>Entrepreneurship and Innovation, University of Sussex Business School, Falmer, Brighton, BN1 9SL, UK, <sup>3</sup>GSEM, University of Geneva, 40 Bd du Pont d'Arve, Genève 4, CH-1211, Switzerland, and <sup>4</sup>SKEMA, Lille, France  
Corresponding author email: g.cotterlaz-rannard@sussex.ac.uk

**This study investigates how the specificity of a university business model supports the dominance and persistence of a handful of elite non-profit universities, while considering the implications this phenomenon has on social responsibility. Despite their longstanding positions at the top of academia for over four decades, these universities often struggle to actively embrace social mobility, diversity and inclusion. The existing literature on business models lacks a comprehensive conceptualization that captures the ability of some institutions to establish and maintain their domination within non-economic fields, such as higher education. Drawing on Bourdieu's framework and a unique dataset comprising 192 private non-profit American universities, the study uncovers two fundamental mechanisms of accumulation and conversion of forms of capital (economic, social, cultural and symbolic) behind the perpetuation of dominance among non-profit universities. This research contributes to both business model and higher education studies by introducing a novel conceptual tool for investigating the business models of non-profit universities. Important managerial and social implications, including a call for leading non-profit universities to enact socially responsible and diversifying measures, follows.**

## Introduction

In the current academic landscape, universities are facing increasing scrutiny not only of their research performance and educational duties, but also of their commitment to social responsibility. Beyond their traditional roles as teaching and knowledge hubs, universities are now expected to serve as catalysts for social mobility and champions of inclusion and diversity. However, many universities, particularly those esteemed as elite and prestigious, find themselves grappling with these challenges. A striking illustration of these challenges can be found in an article published in *The Guardian* in 2019, titled 'How elite US schools give preference to wealthy and white legacy applicants', which exposes the stark lack of diversity and equitable opportunities for accessing elite US universities.

For over 40 years, a select group of universities around the world have consistently held a dominant position in global higher education. Since the first

academic rankings published in the United States in 1983, several institutions – including Harvard, Stanford, Cambridge, Columbia University, Massachusetts Institute of Technology (MIT) and Oxford – have remained in the top 10, vying for the number one spot as the best university in the world. Notably, these leading institutions operate as non-profit entities, driven by a mission to generate research and provide education. In contrast, none of the for-profit universities ranked in the top 200 of the most prestigious universities. How can we explain this persistent domination of a handful of non-profit universities over time?

The business model literature provides a robust theoretical framework centred on the creation and capture of economic value for understanding the domination of businesses in the economic field (Teece, 2010). While recent conceptualization efforts have sought to explore the business models of organizations with dual economic and social purposes, such as social enterprises (e.g. Laasch, 2018; Tykkyläinen and Ritala, 2021),

concerns have been raised regarding their applicability to non-profit organizations (NPOs) (e.g. Kullak, Baker and Woratschek, 2021). In the non-economic field, competition among organizations shifts away from solely economic or economic and social dominance, towards placing greater emphasis on social recognition (Bocquet, Cotterlaz-Rannard and Ferrary, 2021; Bourdieu, 1989; Wacquant, 1998). Consequently, the mechanism of value creation and capture serves less as a means to manage the tension between economic and social value, as observed in social enterprises (Tykkyläinen and Ritala, 2021), and more as a vehicle for achieving symbolic domination within the non-economic field.

Therefore, several scholars call for theoretical explanations and empirical evidence to better understand the business models of NPOs, such as non-profit universities, in order to deepen knowledge of the structuring of the non-economic field (Siegel and Leih, 2018; Siegel and Teece, 2015; Teece, 2018). In contrast to for-profit universities, the ultimate purpose of non-profit universities is not to create economic value but to be socially recognized in the field of higher education. Despite advances made in addressing current challenges faced by universities, as evidenced by prior research (Beech and Anseel, 2020; Brammer and Clark, 2020; Posselt *et al.*, 2019) and the exploration of their business models with a focus on new value propositions and business model innovation (Cunningham and Miller, 2021; Durand and Dameron, 2011; Miller, McAdam and McAdam, 2014; Sengupta and Ray, 2017), the reason why a few leading non-profit universities stay at the top in the higher education field has not been fully addressed.

The purpose of this paper is thus to provide novel insights into this discussion by addressing the following research question: *What underlying mechanisms of non-profit business models drive the persistent dominance of a few universities over time? How can understanding these mechanisms provide universities with ways to promote social mobility and equality of opportunity?* To respond, we draw on Bourdieu's theory of forms of capital (Bourdieu, 1986). Bourdieu defines four different forms of capital (cultural, social, economic and symbolic) and two mechanisms, accumulation and conversion, designed to explore the position of organizations in a field. The central critique by Bourdieu (1989) is that the accumulation of these four forms of capital in elite universities makes them perpetuators of the social reproduction of inequality.

With an original database of 192 private non-profit American universities, this study reveals two specific mechanisms, accumulation and conversion of forms of capital, underlying the dominance and persistence of certain non-profit business models. The first mechanism consists of accumulating economic, social and cultural capital and converting them into symbolic capital to ensure dominance in the field. The second mechanism op-

erates in the conversion of the stock of symbolic capital to accumulate *ex-post* more economic, social and cultural capital, thereby securing the persistence of the dominant business models over time.

This study contributes both to business model and higher education studies. Given that non-profit universities have a social purpose of education and research and require social recognition in the higher education field, Bourdieu's theory of forms of capital offers a new perspective for conceptualizing their business models and addressing the current limitations of business model studies. Our model reveals how economic capital, rather than remaining the primary focus, is combined with other forms of capital (social, cultural and symbolic) in order to establish and maintain the symbolic domination by a handful of non-profit universities in the higher education field. This research also shows how business models, through the mechanisms of accumulation and conversion, can also operate as instruments that perpetuate the social reproduction of the elite (Bourdieu, 1989), thus highlighting the potential lack of social responsibility demonstrated by higher education institutions (HEIs). Considering that dominant non-profit universities are institutions of social production (Bourdieu, 1989), understanding their business models might contribute to designing more responsible and socially diverse universities.

## The specificities of university business models

Business models are no longer exclusively limited to for-profit organizations (McDonald, Masselli and Chanda, 2021). NPOs, such as non-profit universities, also face inquiries regarding the value they create, how they can effectively capture this value and how they can sustain it in the long term (McDonald, Masselli and Chanda, 2021; Seelos and Mair, 2005).

Traditionally, business model studies have predominantly focused on conventional for-profit enterprises, with an emphasis on achieving and maintaining competitive advantage (Teece, 2010), as their primary objective is to generate and capture economic value to enhance profits. Existing conceptualizations of the conventional business model perspective, therefore, focus on economic value creation from the standpoint of the customer and the firm (Zott, Amit and Massa, 2011). Teece's definition of a business model exemplifies this point: 'a business model defines how the enterprise creates and delivers value to customers, and then converts payments received to profits' (Teece, 2010: 173).

However, in recent years, this conventional perspective has been challenged by the emergence of social enterprises with a dual economic and social purpose

(Battilana and Lee, 2014; Ebrahim, Battilana and Mair, 2014). Recent efforts have been made to develop studies on business models for these organizations (Best *et al.*, 2021; Davies and Doherty, 2019; Laasch, 2018; Spieth *et al.*, 2019; Tykkyläinen and Ritala, 2021). In this context, business models are seen less as instruments for value creation and capture, and more as mechanisms for managing tensions between economic and social values (Tykkyläinen and Ritala, 2021).

With the rise of social enterprises, the boundaries between the for-profit and non-profit sectors are becoming increasingly blurred. However, despite this convergence, some scholars have raised concerns that might throw into question the applicability of social business model perspectives to NPOs (Kullak, Baker and Woratschek, 2021). These limitations arise from the fact that the current conceptualization of business models, including that applied to social enterprises, remains centred on firms and follows a linear approach. Moreover, by conceptualizing business models based on social and economic tensions, the mechanisms involved in creating and capturing value to support their business models are overlooked (Tykkyläinen and Ritala, 2021).

Hence, there has been a growing call among scholars to conduct further research on the business models of NPOs (Bocquet, Cotterlaz-Rannard and Ferrary, 2020; Laasch, 2018; McDonald, Masselli and Chanda, 2021), particularly focusing on non-profit university business models in order to provide guidance for better managing universities (McAdam, Miller and McAdam, 2017; Sengupta and Ray, 2017; Siegel and Teece, 2015). From an activity-based interpretation (e.g. Massa, Tucci and Afuah, 2017; Zott and Amit, 2010), recent studies have started to investigate the business model and business model innovation of universities according to new value propositions that universities can offer, such as e-learning (Durand and Dameron, 2011; McAdam, Miller and McAdam, 2021; Miller, Cunningham and Lehmann, 2021; Miller, McAdam and McAdam, 2014; Posselt *et al.*, 2019; Sengupta and Ray, 2017). Different types of business models are identified in terms of content, structure and governance, which are specific to the introduction of new activities/missions at universities (teaching, research, entrepreneurial engagement) (Cunningham and Miller, 2021; Miller and McAdam and McAdam, 2014).

However, these studies present several limitations for understanding non-profit business models and explaining why some non-profit universities are dominant in the higher education field over time. First, they do not explore the general mechanisms of the value creation and capture of business models (Massa, Tucci and Afuah, 2017). Second, they do not differentiate between non-profit and for-profit universities, even though some scholars have argued that non-profit universities cannot

be managed in the same way as for-profits because of their main purpose (Teece, 2018).

In the higher education field, and particularly in the American education system, all leading universities are non-profit. They are part of the top tier, a high-value positional competition market characterized by the scarcity and exclusion that produces elite higher education (*elite research universities*) (Marginson, 2006). In contrast, the bottom tier involves mass higher education with low research output and low prestige (*teaching-focused universities*). Teaching-oriented institutions are, thus, overly determined by low status (Marginson, 2006), in part because only institutional reputation is well-represented within the academic ranking (Walker *et al.*, 2019). Therefore, competition is played out in the tense middle zone between *elite* and *aspiring* research universities. Institutions located in the bottom and intermediate categories find that, whatever they do, barriers hinder upward movement between segments, especially the movement of aspiring research universities to the elites (Marginson, 2006).

To understand how the business models of a few elite non-profit universities strengthen and maintain their dominant positions in the higher education field, we propose a paradigm shift based on a Bourdieusian perspective of non-profit business models in which symbolic capital accumulation is the primary goal, achieved by the accumulation and conversion of economic, social and cultural capital.

## Exploring non-profit university business models from a Bourdieusian perspective

Bourdieu's theory of forms of capital is frequently used in management (e.g. Burgess and Shaw, 2010; Karataş-Özkan and Chell, 2015; Śliwa, Kerr and Robinson, 2021; Tatli, Ozbilgin and Karatas-Ozkan, 2015) as well as in higher education studies (e.g. Deer, 2003; DiMaggio, 1979; Marginson, 2008; Maton, 2005; Naidoo, 2004). In management, researchers have shown that Bourdieu's concepts of fields and forms of capital give current research more theoretical underpinnings and methodological tools to explain the structuring of the economic field and the power relations between organizations (Hamadache, 2015). In higher education studies, Bourdieu's theory is used to explore the structuration of this field, in particular the relationship between HEIs, and societal inequalities (Deer, 2003; DiMaggio, 1979; Marginson, 2008; Maton, 2005; Naidoo, 2004). In *La Noblesse d'État*, Bourdieu (1989) analyses the subfield of the *grandes écoles* in France and shows that beyond the description of facts, attention to structures and hidden mechanisms ensures the perpetuation of positions. According to Bourdieu (1989), the position of an organization in the field depends on the accumulation

of capital. A ‘field’ (e.g. higher education) is a structured system of social relations in which individuals or organizations (e.g. universities) struggle with one another in pursuit of resources and status (Bourdieu, 1993). Capital is a resource whose accumulation can provide holders with an advantageous position in the field where it is produced and reproduced (Bourdieu, 1979).

### *Forms of capital*

Bourdieu defined four forms of capital: economic, social, cultural and symbolic. *Economic capital* refers to material assets, which include financial resources or property (Bourdieu, 1986). At the organizational level, economic capital can be distinguished according to financial supply and flow. Assets measure the organization’s stock of economic capital, and income is associated with the organization’s flow of economic capital. For universities, economic capital refers to the set of economic resources they can mobilize, such as endowments (economic stock) and income (economic flow) (Hansmann, 1990; Marginson, 2008).

The second form of capital is *social capital*, the actual or potential resources related to the possession of a durable network of more or less institutionalized relationships (Bourdieu, 1986). An organization’s stock of social capital is closely linked to the network in which an organization is embedded and whose resources it can draw upon. In higher education, students, alumni and faculty are part of the social capital related to universities (Bourdieu, 1989; Mendoza, Kuntz and Berger, 2012; Naidoo, 2004). Universities that can build more social capital are more likely to receive support from alumni, corporations and foundations seeking to invest in higher learning institutions (Tsui, 2021).

Third, Bourdieu (1986) conceptualizes *cultural capital* with three dimensions. The first dimension is the embodied form or ‘long-lasting dispositions of the mind and body’ (Bourdieu, 1986: 47). The second dimension is the objectified state: cultural goods, such as pictures, books, instruments, and so on. The third dimension is the institutionalized state: educational qualifications such as academic degrees. Knowledge production expressed through both the quantity and the quality of research produced at the university level reflects the cultural capital of universities (Arnoldi, 2007; Bornmann and Daniel, 2007; Bourdieu, 1989; Brosnan, 2017; Naidoo, 2004).

Finally, the fourth form is *symbolic capital* (Bourdieu, 1993: 37), which is ‘a degree of accumulated prestige... founded on a dialectic of knowledge and recognition’. Symbolic capital is the social recognition of the possession of the other three forms of capital and takes shape in a set of signs that may take the form of distinctions conferred by legitimate bodies

or authorities (Bourdieu, 1993). The attribution of these signs of recognition bestows the organization with recognized prestige and legitimacy in a given field. Academic rankings are commonly used and accepted as an indicator of university prestige (Brosnan, 2017; Burgess and Shaw, 2010; Hazelkorn, 2021; Li, Shankar and Tang, 2011; Marginson, 2022; Marginson and Van der Wende, 2007; Walker *et al.*, 2019). Marginson (2006: 13) states that academic rankings ‘reflect prestige and power; and... confirm, entrench and reproduce prestige and power’. They may also influence hiring, recruitment and research funding allocations (Brooks, Schopohl and Walker, 2021; Hazelkorn, 2015; Marginson, 2022) and are used by students in university selection (Ashiru, Whitfield and Warwick, 2022). However, they are often subject to debate and their use is sometimes criticized because, as a social construct, the choice of indicators and methodology is not neutral and they are arranged based on US–Anglo standards (Amsler and Bolsmann, 2012; Marginson and Van der Wende, 2007).

### *Mechanisms of accumulation and conversion of forms of capital*

Bourdieu examines the mechanisms of accumulation and conversion of forms of capital to analyse the structuration of a field (Bourdieu, 1986, 1988, 1989). Competitive struggles to improve or maintain their relative positions in a field depend on the volume of capital secured by the mechanisms of accumulation and conversion (Bourdieu, 1989). He points out that only by examining the structure of the subfield (in this case the non-profit universities) can their relative positions be understood within that field (higher education) (Bourdieu, 1989). As the primary purpose of non-profit universities is to be socially recognized for their mission (not their profit), their primary purpose is to accumulate symbolic capital through the social recognition of the other forms of capital (Bourdieu, 1989).

Drawing on Bourdieu’s theory, the first identified mechanism used by non-profit universities is the accumulation of economic, social and cultural capital and its conversion into symbolic capital (see Figure 1). Universities accumulate economic capital by configuring their tuition fees profitably as well as maximizing philanthropic donations from university foundations, state subsidies or private fundraising (Marginson, 2008). Then, they can use this stock of economic capital to sustain research programmes, recruit researchers, produce knowledge and publish research in academic journals, therefore increasing their stock of cultural capital. This cultural capital allows universities to increase their attractiveness to recruit students and well-known faculty members, further accumulating social capital (Marginson, 2006). By attracting students and their wealthy families, universities can

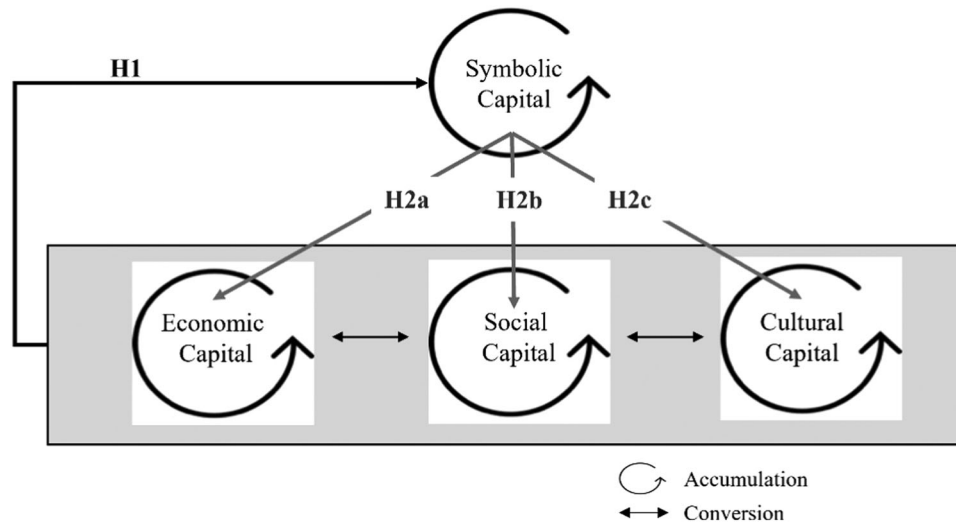


Figure 1. Conceptual framework: the two underlying mechanisms of non-profit business models.

Note: This scheme is our elaboration and aims to represent both mechanisms of accumulation and conversion of forms of capital underlying non-profit business models. The first mechanism (H1) is the accumulation of social, economic and cultural capital and their conversion into symbolic capital. The second mechanism is the conversion of symbolic capital to further accumulate the other forms of capital (H2a, H2b and H2c)

convert their social capital stock into economic capital through alumni donations (Golden, 2007). Through the mechanisms of accumulation and the conversion of one form of capital into another, universities accumulate economic, social and cultural capital. However, these three forms of capital are merely a means to the true end: the accumulation of symbolic capital through the recognition of the other three forms of capital (Brosnan, 2017; Marginson, 2008; Naidoo, 2004).

Harvard University is a prime example of a leading non-profit university, since it has maintained a top position in all academic rankings over the past 40 years (Li, Shankar and Tang, 2011; Sengupta and Ray, 2017). Drawing on Bourdieu's theory, the leading position of Harvard University could be explained by the conversion of a large stock of forms of capital into symbolic ones. Not only does it have the largest endowment among US universities (\$53 billion in 2021), but it is also the most competitive regarding research publication (4410 publications in peer-reviewed journals within 5 years). Furthermore, Harvard University has the most highly cited researchers (214) of any institution in the world based on the 2021 list by Clarivate, and the largest and most illustrious alumni network with more than 323,000 members, including 13 US presidents. Alumni can be important assets in acquiring economic resources (i.e. donations) (Golden, 2007) and fostering academic research (i.e. access to data, case studies, etc.). Harvard maintains a strong relationship with its alumni through the Harvard Alumni Association (HAA), which has an alumni directory list and organizes alumni events.

However, there is a range of institutions in low and intermediate positions trying to break into the ranks of leading universities but struggling to move up (Margin-

son, 2006). They seek to implement this mechanism in the same way as their reference models but inevitably fail to supplant them. From a Bourdieusian interpretation, this could be due to a failure to accumulate large stocks of economic, social and cultural capital and then to convert them into symbolic capital. To illustrate, Clarkson University, founded in 1896, is not in a top position in the higher education field. The key figures show a low endowment compared to the leading universities (\$241 million in 2021) and low research output (91 publications in peer-reviewed journals within 5 years). Furthermore, the university appears to have a more limited social network with regard to the small number of alumni (44,000).

These two examples are provided to illustrate the first mechanism of accumulation of symbolic capital through conversion via the social recognition of the other forms of capital underlying non-profit business models. This mechanism is triggered for prestigious non-profit universities, whereas it seems difficult to access for lower-tier universities. We therefore hypothesize:

**H1:** The business model that allows non-profit universities to dominate the higher education field is driven by their ability to accumulate symbolic capital through the conversion of other forms of capital (economic, social and cultural).

The second mechanism used by non-profit universities is the conversion of symbolic capital into economic, social and/or cultural capital (see Figure 1). Although non-profit universities accumulate symbolic capital to ensure their dominant position, they also need to maintain that placement in the long term. Bourdieu (1989) refers specifically to the reproduction of the structuring

of the higher education field. Dominant non-profit universities convert their accumulated symbolic capital to increase the other three forms of capital and thus enter into a virtuous circle of self-reinforcing domination (Marginson, 2008).

For instance, Harvard University is recognized and legitimized as one of the most prestigious universities in the world. Following Bourdieu's reasoning, as a dominant player in the higher education field, Harvard not only possesses a large stock of symbolic capital but also converts its concentrated stock into economic, social and cultural capital, thereby ensuring a self-reinforcing dominance. Looking at the figures, Harvard seems to convert its large stock of accumulated symbolic capital ex-ante by charging high tuition fees (approximately \$54,000 in 2021–2022), being highly selective (selection rate of 3.4% for 2021–2022) and recruiting a large percentage of graduate students, mainly to conduct research activities (72.8% graduate students for 2021–2022).

However, universities are not equal in terms of the stock of symbolic capital, as it results from the recognition of the other three forms of capital ex-ante. Let us return to the example of Clarkson University. The university is not part of the leading research universities, most likely due to a low stock of symbolic capital. Compared to the most prestigious universities, Clarkson University has somewhat lower tuition fees (approximately \$51,000 in 2021–2022), is much less selective (selection rate of 78% for 2021–2022) and recruits fewer graduate students (only 27.5% of students are graduates for 2021–2022).

Both examples seem to support the perpetuation of dominance in a field that is explained by the mechanisms of accumulation and conversion of forms of capital in the long term (Bourdieu, 1989). Dominant non-profit universities have developed business models aimed at ensuring the conservation of a large stock of all forms of capital, thus perpetuating the institutional hierarchy they belong to, whereas other universities must make additional investments aimed at accumulating economic, social and cultural capital to hopefully convert this investment into symbolic capital. We therefore hypothesize:

*H2*: The business model that allows non-profit universities to maintain their dominance in the higher education field is based on their ability to convert symbolic capital to further accumulate economic (*H2a*), social (*H2b*) and cultural capital (*H2c*).

## Empirical methodology

### Sample and data

The US higher education industry is characterized by a mix of private non-profit universities (Harvard, Yale,

Stanford, Princeton, etc.) and for-profit universities (University of Phoenix, Rasmussen College or Capella University). For decades, the former have been the most prestigious institutions in academic rankings and the latter remain at the bottom of these rankings. This situation makes the US higher education industry a valuable field of research in the exploration of non-profit university business models. Non-profit American universities are different from for-profit universities in two ways. First, the purpose of non-profit universities is not to create economic value as for-profit universities do (Marginson, 2006). Instead, they aim to create social value while ensuring that their revenues exceed their costs. Second, non-profit universities are governed by a president and a board of directors whose essential role is to ensure that the university remains true to its mission. They do not have shareholders who can expect dividends as for-profit universities do.

We constructed an original and unique database using a list of American universities and colleges provided by the National Association of College and University Business Officers (NACUBO). NACUBO is a membership organization representing colleges and universities across the United States. The association's mission is to advance economic viability, business practices and support for HEIs in the fulfilment of their missions. Each year, NACUBO publishes the *NACUBO-TIAA Study of Endowments (NTSE)* on the endowments of US colleges and universities and affiliated foundations. This list allowed us to identify 214 private non-profit American universities as well as their stock of economic capital for the years 2016 and 2018.<sup>1</sup> In the same period, we carefully checked various databases, such as US News and World Report (USNWR), the Census Bureau, Prep-Scholar, ISI Web of Science and LinkedIn. From the population of 214 American private non-profit universities, we were able to obtain complete data for 192 representative institutions.

### Empirical procedure

We followed a two-step econometric procedure. In the first step, we used a Tobit model with instrumental variables to assess the ability of universities to convert their economic, social and cultural capital into symbolic capital (H1). The Tobit model (censored regression model) is designed to estimate linear relationships between variables when there is either left- or right-censoring in the dependent variable, which was our case for the measure of symbolic capital. In the second step, we ran regression models to examine the extent to which universities convert their symbolic capital into other forms of capital (H2a, H2b, H2c). As we implemented a two-step

<sup>1</sup>Data collected before the Covid-19 pandemic.

Table 1. Variable definitions

Name	Label	Data source
<i>Variables used in the classification procedure</i>		
Economic_capital	Endowment held by each university in 2016 (log)	College and university business officers and the Commonfund Institute
Cultural_capital	h-index of each university in 2016 (log)	Exaly database
Social_capital	Gifts received by each university in 2016, including all contributions in the form of cash, securities, company products and other property from alumni, non-alumni individuals, corporations, foundations, religious organizations and other groups (log)	The Center for Measuring University Performance, Annual Report 2017, Part III, Annual Giving
<i>Variables used in the Tobit model (first step)</i>		
Symbolic_capital (dependent variable)	Score obtained (from 0 to 100) in the USNWR 'Best Global Universities' (2018)	USNWR
Intermediate_status (ref.) (Independent variable)	= 1 if the university belongs to university cluster 3, and 0 otherwise	Classification procedure
High_status (Independent variable)	= 1 if the university belongs to university cluster 1, and 0 otherwise	Classification procedure
Low_status (Independent variable)	= 1 if the university belongs to university cluster 2, and 0 otherwise	Classification procedure
Age (Control variable)	Age of the university (in years)	USNWR
Faculty (Control variable)	Number of active faculty members at the university (from 1 to 5)	The World Ranking University
Usnwr_2013 (Instrumental variable)	Score obtained (from 0 to 100) in the USNWR 'Best Global Universities' ranking (2013)	USNWR
<i>Variables used in the regression model (second step)</i>		
Tuition (Dependent variable)	Cost to attend each university for 2018–2019 (dollars)	Database CollegeTuitionCompare
Graduates (Dependent variable)	Number of graduate students for each university for 2018–2019	USNWR
Selection (Dependent variable)	Admissions rate for each university for 2018–2019	Database PrepScholar
Symbolic_capital_p (Independent variable)	Predicted symbolic capital variable	Tobit model procedure
Median_income (Control variable)	Median household income by state in 2018	Census bureau

procedure, we used the predicted value of symbolic capital that resulted from the first-step regression as the core independent variable. We estimated three regression models depending on the dependent variable we retained.

Our two-step econometric procedure allows us (Heckman, 1979) to control for endogeneity due to the simultaneous causality of our model<sup>2</sup> (Certo *et al.*, 2016). Particular attention was paid to the choice of an instrumental variable. We provided an instrumental variable (past reputation) that fulfils both conditions of relevance (i.e. there is a strong fit between the endogenous variable and the instrument) and exogeneity (i.e. the only role of the instrument is to influence the dependent variable through its effect on the endogenous variable) (Semadeni, Withers and Trevis Certo, 2014).

We started with the description of the variables used first in the Tobit model (first step) and then in the regression models (second step). Table 1 provides the definitions of the variables.

<sup>2</sup>Causality could run in both directions, from the independent variable (differentiated status) to the dependent variable (symbolic capital) and from the dependent variable (symbolic capital) to the independent variable (differentiated status).

### *Measures used in the Tobit model (first step)*

*Dependent variable.* Although academic rankings are sometimes the subject of vigorous debate due to their methodologies, choice of indicators and reliability of data, they are commonly used to measure the prestige of universities (Amsler and Bolsmann, 2012; Hazelkorn, 2015, 2021; Volkwein and Sweitzer, 2006; Walker *et al.*, 2019). Based on previous studies, we measured the prestige of American non-profit universities using the USNWR ranking. We had several reasons to opt for the USNWR. First, this ranking is the oldest, beginning in 1983, and it is very frequently used in the United States (Myers and Robe, 2009). Furthermore, the methodology for estimating the score of universities in this ranking is interesting in that it uses a survey on the academic reputation of universities in addition to the more standard criteria specific to all university rankings (Myers and Robe, 2009). We examined the 'Best Global Universities' ranking published by USNWR<sup>3</sup> in 2018 to create a symbolic capital measure for American non-profit

<sup>3</sup>Three main criteria: (i) reputation indicators (25%) resulting from Clarivate Analytics' *Academic Reputation Survey*; (ii) bibliometric indicators (65%) based on the Web of Science regarding publications, books, conferences, citation impact, total



universities from each university's total score (from 0 for universities with no prestige to 100 for the most prestigious ones).

*Independent variables.* The independent variables result from a classification (k-means procedure) that makes it possible to identify three categories of universities according to their stock of economic, social and cultural capital. Following the typical segmentation of universities in the United States, we expected to find three categories of non-profit American universities (e.g. Marginson, 2006) according to their stock of economic, social and cultural capital. We operationalized these forms of capital as follows.

- (i) *Economic capital.* Building on previous studies, we measured economic capital by the endowment stock of each university in 2016. They indicated that the stock of endowment represents an important part of the operating budget, and it constitutes the major financial reserve for non-profit universities (e.g. O'Shea et al., 2005; Pfeffer and Fong, 2004; Smith and Smith, 2016).
- (ii) *Social capital.* We measured social capital by the annual gifts received by each university in 2016 (fiscal year), including all contributions in the form of cash, securities, company products and other property from alumni, non-alumni individuals, corporations, foundations, religious organizations and other groups. Public funds, earnings on investments held by the institution and unfulfilled pledges are not included. We chose this proxy for social capital in line with previous studies that have highlighted the importance of gifts in the construction of social capital (Dolfsma, Van der Eijk and Jolink, 2009; Larsen and Watson, 2001). Donations can be used to initiate, maintain or expand social capital. Furthermore, Portes (1998) argues that donors are sources of social capital. In higher education, universities that can build more social capital are more likely to receive support from alumni, corporations and foundations seeking to invest in higher learning institutions (Tsui, 2021).
- (iii) *Cultural capital.* We used the h-index at the university level in 2016 as a proxy for cultural capital for two main reasons. First, the h-index is probably the most popular indicator used to measure the knowledge production of a researcher or an institution (Mryglod, Holovatch and Kenna, 2022). According to Hirsch (2005), a scientist or an institution has an index of h when this scientist/institution has

produced h papers, each of which has been cited by others at least h times. That is, to receive a higher h value, researchers and institutions must perform well both in paper quantity and quality (Huang and Lin, 2011). The h-index thus presents the advantage of quantifying as a single-number criterion the university's scientific output. Second, in line with Hirsch (2005: 16,569), we focused on the h-index rather than the total number of citations because the total number of citations 'may be inflated by a small number of "big hits"'. Bornmann and Daniel (2007) explain that Hirsch's argument in favour of the h-index over the total number of citations indicator is now well accepted by scholars. Moreover, the h-index not only has the advantage of being relatively insensitive to a few highly cited publications, but also to large numbers of lowly cited and uncited publications.

To determine the final number of clusters, we used three criteria: statistical accuracy, measured by the ratio of within-cluster to between-cluster variance (Fisher's test); the number of American non-profit universities per cluster; and the significance of the clusters identified. As expected, three clusters emerge in the best version<sup>4</sup> (see Appendix 1). The first profile, called 'high status', is comprised of American non-profit universities with a large stock of economic, social and cultural capital. The second profile, called 'low status', is formed by universities with a low stock of economic, social and cultural capital. The last profile, called 'intermediate status', includes non-profit American universities with a medium stock of economic, social and cultural capital. We denoted these three independent variables *high\_status*, *low\_status* and *intermediate\_status*, respectively.

*Instrumental variable.* We used past prestige as an instrumental variable since previous studies have shown that former rankings are key drivers of current ranking for universities (Grewal, Dearden and Lilien, 2008). Past prestige (*Usnwr\_2013*) is measured by the score obtained (from 0 to 100) by each university in the 2013 'Best Global Universities' ranking.

*Control variables.* We introduced two main control variables. First, we included the number of faculty that each university has. We followed a prior study finding that academic research cannot be envisaged as a homogenous unit because faculty members can also affect the recognition and prestige of universities (Albert, 2003). Consistent with Volkwein and Sweitzer (2006), institutional age also seems to be an important shaper of prestige; we therefore included the age variable, which

citations, number of publications most cited and international collaboration; and (iii) scientific excellence indicators (10%) based on the number of highly cited papers, the percentage of highly cited papers and the overall global scores using a combination of the score of reputation and bibliometric indicators.

<sup>4</sup>We also conducted a two- and four-class classification, which performed worse for all criteria.

corresponds to the number of years the university has been in service.

#### Measures used in regression models (second step)

**Dependent variables.** To test the persistence of private non-profit university business models, we use three dependent variables (tuition, selection and graduates). First, we introduced the tuition variable to measure the cost of attendance for each university for 2018–2019, in line with a previous study indicating that a positive reputation can lead to higher tuition (Durand and Dameron, 2011). Second, we introduced the selection variable to measure university selectivity for 2018–2019. Previous studies have shown that a strong reputation could affect the selection of students (Marginson, 2008; Volkwein and Sweitzer, 2006). Third, we introduced the graduates variable to measure the number of graduate students for each university for 2018–2019. Previous studies have pointed out that universities with strong reputations will be able to recruit more students for their graduate programmes (Durand and Dameron, 2011).

**Independent variable.** We used the predicted value of symbolic capital (*symbolic\_capital\_p*), obtained in the first-step regression (Tobit), to estimate the central equation in the second step. This process allows standard deviations to be obtained that explicitly consider the presence of estimated regressors.

**Control variables.** In line with previous studies that found a significant relationship between family income and the academic level of students (Stinebrickner and Stinebrickner, 2000), we introduced a variable (*median\_income*) measuring the median household income by state. We also include the number of faculty that each university has and the age variable, which corresponds to the number of years that the university has been in service. Table 1 summarizes all the variables used in the first and second steps.

## Results

In support of H1, the results from the Tobit model indicate that high-status universities have a positive and significant probability of accumulating symbolic capital (see Table 2). In contrast, low-status universities have a negative probability of accumulating symbolic capital. This means that the more economic, social and cultural capital a university has accumulated ex-ante (high-status university), the more it will convert these three forms of capital into symbolic capital compared to the reference category (intermediate-status universities) in our model. Conversely, the less economic, social and cultural capital a university has accumulated (low-status university), the less it will be able to convert them

Table 2. Tobit estimation results

	Symbolic capital
Intermediate status	Ref.
High status	61.87299*** (7.899288)
Low status	−25.17803*** (8.069397)
Age	0.1109335* (0.0668242)
Faculty	3.729056 (3.781786)
Usnwr_2013	0.616777*** (0.140308)
_cons	−35.76589 (19.54803)
Number of observations	192
Log likelihood	−437.12066
Wald $\chi^2$	157.42***

Notes: Estimated coefficients and standard errors in brackets.

\*\*\* Significant at 1%. \* Significant at 10%.

into symbolic capital. Among the control variables, we found a positive and significant effect of former reputation (*Usnwr\_2013*). As expected, the past prestige of the university has a positive impact on its current prestige. Similarly, a positive effect of age (though small) is found. A broad range of faculty members has no significant effect on universities' symbolic capital.

The results from the regression models indicate that H2a, H2b and H2c are supported (see Table 3). In model 1, we found a significant and positive effect of the predicted symbolic capital variable on tuition costs. This outcome supports H2a in that universities with a large stock of symbolic capital convert it to accumulate more economic capital through higher tuition. Thus, a large stock of symbolic capital enables the justification of higher tuition for education programmes. Among the control variables, median household income had a significant and positive effect on tuition cost, while the age and faculty variables had no significant effect.

In model 2, we found that predicted symbolic capital has a positive and significant effect on the selection rate. In line with H2b, the larger the university's stock of symbolic capital, the more selective it will be. Universities with a large stock of symbolic capital thus convert it to accumulate more social capital. Age and faculty also have a positive and significant effect on the selection rate. The median household income variable has no significant effect on the selection rate.

In model 3, the results support H2c, showing that symbolic capital affects the number of graduate students positively and significantly. A large stock of symbolic capital could be a means for attracting more graduate students and thus lead to the accumulation of more cultural capital. Regarding control variables, age,

Table 3. Regression model results

	Model 1 Tuition	Model 2 Selection	Model 3 Graduates
Symbolic_capital_p	183.101*** (13.93443)	0.0040454*** (0.0003483)	55.11384*** (7.941215)
Age	5.566233 (10.96117)	0.0006836** (0.0002744)	-3.153502 (6.209856)
Faculty	-568.293 (571.1355)	0.0295182** (0.0146109)	80.3827 (324.1733)
Median_income	0.259397*** (0.0655069)	-1.57e-06 (1.65e-06)	0.0435466 (0.0372635)
_cons	24854.79*** (5251.123)	0.6679884*** (0.1321645)	154.1981 (2985.823)
Number of observations	192	192	192
Adj. R-squared	0.6258	0.5763	0.3003

Notes: Estimated coefficients and standard errors in brackets.

\*\*\*Significant at 1%. \*\*Significant at 5%.

faculty and median\_income have no significant effects on the number of graduate students.

To check the robustness of the results, we used other specifications of social capital (measured by the number of alumni on the LinkedIn webpage of each university in 2016) and cultural capital (measured by the number of academic publications in ranked journals from the ISI Web of Knowledge database in 2016). The analyses using these different specifications provide similar results. They are detailed in Appendix 2.

## Discussion and conclusion

The field of higher education is a space of relative positions, which has its own rules and is governed by a principle of social differentiation where institutions are distinguished from each other according to certain criteria (Delval and Bühlmann, 2020). It is a field of struggle within which organizations compete for the dominant position based on the possession of the four forms of capital (Bourdieu, 1994). Understanding the mechanisms of accumulation and conversion underlying non-profit business models through a Bourdieusian perspective highlights how they serve to perpetuate the dominance of leading non-profit universities in the field of higher education. The first mechanism identified consists of accumulating symbolic capital through the conversion of economic, social and cultural capital to ensure dominant status in the higher education field. The second is revealed in the conversion of symbolic capital to further accumulate economic, social and cultural capital, a cycle that secures the persistence of dominant status. These two mechanisms follow one another, link up and repeat themselves over time, forming a virtuous circle guaranteeing the maintenance of hierarchical domination in the field (Bourdieu, 1989).

However, our findings show that not all universities succeed in triggering these mechanisms of accumulation and conversion of forms of capital that underpin their business models. Rather, many non-profit universities (intermediate-status and low-status universities in this study) seek to implement these mechanisms in the same way as their reference models but almost inevitably fail to supplant them. High-status non-profit universities – the first movers – are the ‘winners at all’ (Lieberman and Montgomery, 1988). Following Bourdieu’s (1989) analysis, in the struggle for symbolic capital, high-status non-profit universities have a considerable advantage from the outset. They have more prestige, are more attractive to potential students and faculty and are embedded at the centre of economic and political power (Bourdieu, 1989; Marginson, 2008).

Symbolic capital is both the instrument and the primary stake in non-profit business models, with which non-profit universities compete for positions of power (Bourdieu, 1989). The goal for universities is to be known and socially recognized as one of the dominant players in the higher education field (Bourdieu, 1989; Marginson, 2008). The instrument for achieving this end is the concentration of symbolic capital that enables the continuous acquisition of more of the other forms of capital, which thereby ensures a virtuous circle of value creation and capture of the dominant players over time.

Created in the 1980s, academic rankings respond to the need to assess the performance of HEIs, materializing a global and national competition for university excellence, prestige and status (Marginson, 2008). Academic rankings are an established reference point for educational decision-making, including student choices, the recruitment of faculty members and research funding (Ashiru, Whitfield and Warwick, 2022; Brooks, Schopohl and Walker, 2021; Walker *et al.*, 2019).

However, they are subject to intense debate because of the methodological flaws, cultural homogenization, de-contextualization and injustices they entail (Marginson, 2022; Marginson and Van der Wende, 2007). As they are established using US–Anglo standards, they foster the status quo, enabling a handful of American non-profit universities already at the top to secure and perpetuate the institutional order (Amsler and Bolsmann, 2012; Geiger, 2004; Hazelkorn, 2009; Marginson, 2022). Bourdieu and Passeron (1977) state that: ‘every power which manages to impose meanings... as legitimate by concealing the power relations which are the basis of its force, adds its own specifically symbolic force to those power relations’ (Bourdieu and Passeron, 1977: 4).

By imposing their norms and standards as legitimated by academic rankings, high-status non-profit universities impose a form of symbolic violence towards excluded and marginalized institutions, reinforcing the privilege of those that already occupy the most dominant positions in the field (Bourdieu and Passeron, 1970; DiMaggio, 1979; Watson and Widin, 2015). Bourdieu’s conceptualization delineates this type of domination as symbolic violence, characterized by the imposition of values by a particular social class upon the entirety of society. In his seminal work, *Homo Academicus*, Bourdieu (1988) posits that the higher education field functions as a competitive arena wherein agents vie for dominance and legitimacy. This struggle ultimately grants the victors a monopoly over symbolic power, enabling them to enforce their symbolic capital as the legitimate standard (Bourdieu, 1988: 11). Accordingly, within Bourdieu’s theory of symbolic domination, universities assume a prominent position as sites where the practice of symbolic violence transpires through the imposition of dominant cultural norms.

The perpetuation of the institutional order of dominant non-profit universities encouraged by academic rankings also raises important societal concerns, in particular the reproduction of social inequalities. The theory of social reproduction developed by Bourdieu and Passeron (1964, 1970) focuses on how the unequal distribution of resources is perpetuated over time. This approach helps to clarify the processes by which the members of a social group aim to obtain or preserve certain resources (economic, cultural, social and symbolic capital) to be transferred to the next generation in order to ensure an equal or superior standing in society for these future generations.

Thus, the upper classes have a multitude of practices (*habitus*) enabling the accumulation and conversion of different forms of capital. For upper economic classes – who seem to be the target audience of prestigious American non-profit universities – the mere possession and transmission of economic capital is no longer sufficient to legitimize and guarantee access to positions of

economic power (Bourdieu, 1994). Obtaining an academic title (an institutionalized form of cultural capital) delivered by one of the most prestigious universities is now indispensable for access to and legitimization of the occupation of a leading professional position (Bourdieu and Passeron, 1970; Delval and Bühlmann, 2020) through the acquisition of the social capital and symbolic capital associated with these institutions (Bourdieu, 1989).

In their effort to perpetuate both the institutional order of prestigious non-profit universities and the social reproduction of the upper classes, some such universities frequently make the headlines for irresponsible practices and abuses. For instance, non-profit universities such as Brown University or Harvard University have reportedly offered preferential treatment to students of wealthy and influential parents (Golden, 2007). Owing to the *habitus* of the upper classes to send their children to the most prestigious universities, non-profit universities have listed candidates whose admission will almost certainly lead to large and imminent donations. By selecting students according to the wealth of their parents and their donations, non-profit universities secure an accumulation of economic capital and then convert it directly into symbolic capital by investing in communication and prestigious artefacts and, indirectly, by converting it into cultural capital by investing in research and faculty recruitments, and in social capital by organizing social events and campaigns to connect with alumni. To illustrate this reality, 19% of students at Brown University are from families in the top 1% income bracket in the United States, and less than 2% of Harvard students come from low-income households.<sup>5</sup>

These practices highlight an important and worrying issue; through their business models, leading non-profit universities actively participate in the perpetuation of social inequalities. Instead of assuming responsibility for encouraging equity in society and being a powerful force for social mobility, the two mechanisms underlying leading non-profit university business models impose and legitimize the reproduction of social, economic and cultural inequalities.

#### *Theoretical contributions to the business model research*

This study contributes to business model studies in three significant ways. First, our research enriches the understanding of non-profit (university) business models by employing a Bourdieusian perspective, shedding

<sup>5</sup>Retrieved from <https://www.forbes.com/sites/christopherrim/2019/02/27/recent-scandal-at-brown-highlights-how-the-ivy-league-grants-special-treatment-to-children-of-donors/?sh=4ad115651abf>.

light on the dynamics of capital accumulation and conversion that sustain long-term dominance in the non-economic (higher education) field. By drawing upon the Bourdieusian framework, we address prevailing limitations within both conventional and social business model perspectives. Despite recent endeavours to explore business models in diverse contexts, such as those of social enterprises with dual economic and social objectives, persistent concerns remain. Prior studies tend to adopt a firm-centric approach that is linear, demonstrating a still limited understanding of the mechanisms involved in creating and capturing social value (Best *et al.*, 2021; Kullak, Baker and Woratschek, 2021).

Bourdieu's theory offers valuable insights to address these concerns. On the one hand, it provides a comprehensive framework that views various forms of capital as complementary and convertible, thereby facilitating an in-depth examination of the underlying mechanisms of value creation and capture, as well as their interplay. On the other hand, drawing upon Bourdieu's theory enables a nuanced understanding of organizational domination based on social recognition, while recognizing economic capital as one constituent of the broader system. This aligns with the purpose of the non-profit sector, including non-profit universities.

Second, our study contributes to the literature by introducing a novel conceptual tool for investigating the business models of non-profit universities. Departing from previous research that predominantly examined business model innovation in HEIs through an activity system perspective (Cunningham and Miller, 2021; McAdam, Miller and McAdam, 2021; Zott and Amit, 2010), our approach offers distinct advantages. While the activity system perspective is valuable in exploring the novel activities undertaken by universities and their impact on business models, its applicability is limited when it comes to comprehending the broader mechanisms underlying business models. In this regard, our research complements existing knowledge by providing a theoretical foundation for comprehending the general mechanisms at play in the business models within alternative organizational contexts.

Lastly, this research contributes to a better understanding of the persistence of dominant business models. With the exception of a few studies (e.g. Schaltegger, Luedeke-Freund and Hansen, 2016), this topic remains rather undeveloped and not well understood. Our study highlights that the persistence of dominant non-profit business models is achieved through the continuous interweaving of the identified mechanisms of accumulation and conversion of forms of capital. If these mechanisms guarantee the reproduction of the hierarchical domination of organizations in a field, they remain difficult to trigger and continue to benefit organizations already at the top of the ladder (symbolic violence).

### *Theoretical and managerial contributions to higher education research*

Sociologists and higher education studies have long recognized the relationship between habitus, education and social inequality (e.g. Bodovski, 2010; Czerniewicz and Brown, 2013; Harker, 1984). However, this paper goes further as we show how organizations, through their business models, can also contribute to the reproduction of hierarchy, impose their norms and identities and contribute to social and economic inequalities. Here we identify two specific mechanisms that underlie the business models of the dominant non-profit universities. These mechanisms contribute to the perpetuation of their dominance, aligning with Bourdieu's concept of symbolic violence imposed upon the less privileged. Simultaneously, they facilitate the social reproduction of privileged classes, thereby fuelling the social and economic reproduction of inequalities.

This study also holds important implications, both at the managerial level within HEIs and for society at large. Universities bear the responsibility of being agents of positive change, fostering an equitable, diverse and socially responsible society. Rather than maintaining the status quo, our study prompts universities to critically evaluate their practices and policies to actively contribute to a more equitable society.

### *Limitations and suggestions for further research*

This study contains several limitations that provide additional avenues of research. First, we tested our conceptual model on non-profit American universities using data from 2016 to 2018. As our sample is focused on American universities, the scope could be expanded to include non-profit universities from other countries. Moreover, it would be more meaningful to study a longer period to provide further analysis regarding the mechanisms of accumulation and conversion of forms of capital underlying business models. Extensive studies could be carried out over a long period. Second, we attempted to operationalize a complex and multi-dimensional perspective to understand the business models of non-profit universities. However, the methodology we used did not allow us to test the conversion between each form of capital (i.e. economic, social and cultural capital) but combined these three forms. Although this choice was theoretically justified (symbolic capital is the recognition of these three forms of capital) and statistically relevant (cluster analysis captures the potential complementarity between these forms of capital), further studies should test the conversion between each of them. Third, as our research specifically focuses on the university context, we acknowledge that our findings may not present a comprehensive understanding of non-profit business

models as a whole. Therefore, we recommend conducting further studies that encompass a broader range of non-profit organizations. This theoretical framework can also be employed to analyse other types of HEIs, such as business schools and public state universities (Durand and Dameron, 2011). Finally, as universities are increasingly assessed on their societal impact, it would be interesting to analyse whether new mechanisms of accumulation and conversion of forms of capital are being implemented.

Above all, we hope that this research has contributed to a better understanding of the mechanisms underlying the business models of non-profit American universities and that knowledge might lead to the design of more responsible and diverse universities.

## References

- Albert, M. (2003). 'Universities and the market economy: the differential impact on knowledge production in sociology and economics', *Higher Education*, **45**, pp. 147–182.
- Amsler, S. S. and C. Bolsmann (2012). 'University ranking as social exclusion', *British Journal of Sociology of Education*, **33**, pp. 283–301.
- Arnoldi, J. (2007). 'Universities and the public recognition of expertise', *Minerva*, **45**, pp. 49–61.
- Ashiru, F., I. Whitfield and P. Warwick (2022). 'Business school capital and study choices in undergraduate education: a student-centred approach', *The International Journal of Management Education*, **20**, art. 100633.
- Battilana, J. and M. Lee (2014). 'Advancing research on hybrid organizing—insights from the study of social enterprises', *Academy of Management Annals*, **8**, pp. 397–441.
- Beech, N. and F. Anseel (2020). 'COVID-19 and its impact on management research and education: threats, opportunities and a manifesto', *British Journal of Management*, **31**, pp. 447–449.
- Best, B., K. Miller, R. McAdam and S. Moffett (2021). 'Mission or margin? Using dynamic capabilities to manage tensions in social purpose organisations' business model innovation', *Journal of Business Research*, **125**, pp. 643–657.
- Bocquet, R., G. Cotterlaz-Rannard and M. Ferrary (2020). 'How do NPOs get funding? A business model perspective based on the conversion of symbolic capital', *Nonprofit and Voluntary Sector Quarterly*, **49**, pp. 1233–1258.
- Bocquet, R., G. Cotterlaz-Rannard and M. Ferrary (2021). 'Is research enough for a university to gain prestigious status', *Academy of Management Proceedings*, **2021**, art. 14460.
- Bodovski, K. (2010). 'Parental practices and educational achievement: social class, race, and habitus', *British Journal of Sociology of Education*, **31**, pp. 139–156.
- Bornmann, L. and H. Daniel (2007). 'What do we know about the h index?', *Journal of the American Society for Information Science and Technology*, **58**, pp. 1381–1385.
- Bourdieu, P. (1979). 'Les trois états du capital culturel', *Actes de la recherche en sciences sociales*, **30**, pp. 3–6.
- Bourdieu, P. (1986). 'The forms of capital'. In J. G. Richardson (ed.), *Handbook of Theory and Research for the Sociology of Education*, pp. 241–258. New York: Greenwood.
- Bourdieu, P. (1988). *Homo Academicus*. Stanford, CA: Stanford University Press.
- Bourdieu, P. (1989). *La noblesse d'État: Grands corps et grandes écoles*. Paris: Editions de Minuit.
- Bourdieu, P. (1993). *The Field of Cultural Production: Essays on Art and Literature*. New York: Columbia University Press.
- Bourdieu, P. (1994). 'Structures, habitus, power: basis for a theory of symbolic power'. In N. B. Dirks, G. Eley and S. B. Ortner (eds), *Culture/Power/History: A Reader in Contemporary Social Theory*, pp. 155–199. Princeton, NJ: Princeton University Press.
- Bourdieu, P. and J.-C. Passeron (1964). *Les étudiants et leurs études*. Berlin: De Gruyter Mouton.
- Bourdieu, P. and J.-C. Passeron (1970). *La reproduction éléments pour une théorie du système d'enseignement*. Paris: Les Éditions de Minuit.
- Bourdieu, P. and J.-C. Passeron (1977). *Reproduction in Education, Society and Culture*. London: Sage.
- Brammer, S. and T. Clark (2020). 'COVID-19 and management education: reflections on challenges, opportunities, and potential futures', *British Journal of Management*, **31**, pp. 453–456.
- Brooks, C., L. Schopohl and J. T. Walker (2021). 'Comparing perceptions of the impact of journal rankings between fields', *Critical Perspectives on Accounting*, **90**, art. 102381.
- Brosnan, C. (2017). 'Bourdieu and the future of knowledge in the university'. In L. Adkins, C. Bosnan and S. Threadgold (eds), *Bourdieuian Prospects*, pp. 49–70. London: Routledge.
- Burgess, T. F. and N. E. Shaw (2010). 'Editorial board membership of management and business journals: a social network analysis study of the Financial Times 40', *British Journal of Management*, **21**, pp. 627–648.
- Certo, S. T., J. R. Busenbark, H. S. Woo and M. Semadeni (2016). 'Sample selection bias and Heckman models in strategic management research', *Strategic Management Journal*, **37**, pp. 2639–2657.
- Cunningham, J. A. and K. Miller (2021). 'Entrepreneurial university business models: core drivers, challenges and consequences'. In U. Hytti (ed.), *A Research Agenda for the Entrepreneurial University*. Cheltenham: Edward Elgar.
- Czerniewicz, L. and C. Brown (2013). 'The habitus of digital "strangers" in higher education', *British Journal of Educational Technology*, **44**, pp. 44–53.
- Davies, I. A. and B. Doherty (2019). 'Balancing a hybrid business model: the search for equilibrium at Cafédirect', *Journal of Business Ethics*, **157**, pp. 1043–1066.
- Deer, C. (2003). 'Bourdieu on higher education: the meaning of the growing integration of educational systems and self-reflective practice', *British Journal of Sociology of Education*, **24**, pp. 195–206.
- Delval, A.-S. and F. Bühlmann (2020). 'Strategies of social (re)production within international higher education: the case of Swiss hospitality management schools', *Higher Education*, **79**, pp. 477–495.
- DiMaggio, P. (1979). *On Pierre Bourdieu*. Chicago, IL: University of Chicago Press.
- Dolfsma, W., R. Van der Eijk and A. Jolink (2009). 'On a source of social capital: gift exchange', *Journal of Business Ethics*, **89**, pp. 315–329.
- Durand, T. and S. Dameron (2011). 'Where have all the business schools gone?', *British Journal of Management*, **22**, pp. 559–563.
- Ebrahim, A., J. Battilana and J. Mair (2014). 'The governance of social enterprises: mission drift and accountability challenges in hybrid organizations', *Research in Organizational Behavior*, **34**, pp. 81–100.
- Geiger, R. L. (2004). 'Market coordination of higher education: the United States'. In P. Teixeira, B. Jongbloed, D. Dill and A. Amaral (eds), *Markets in Higher Education*, pp. 161–183. Dordrecht: Springer.
- Golden, D. (2007). *The Price of Admission: How America's Ruling Class Buys its Way into Elite Colleges – and Who Gets Left Outside the Gates*. New York: Broadway Books.
- Grewal, R., J. A. Dearden and G. L. Lilien (2008). 'The university rankings game: modeling the competition among universities for ranking', *The American Statistician*, **62**, pp. 232–237.
- Hamadache, K. (2015). 'Reintroducing power and struggles within organisational fields: a return to Bourdieu's framework'. In A. Tatli, M. Ozbilgin and M. Karatas-Ozkan (eds), *Pierre Bourdieu, Organization, and Management*, pp. 123–144. New York: Routledge.

- Hansmann, H. (1990). 'Why do universities have endowments?', *The Journal of Legal Studies*, **19**, pp. 3–42.
- Harker, R. K. (1984). 'On reproduction, habitus and education', *British Journal of Sociology of Education*, **5**, pp. 117–127.
- Hazelkorn, E. (2009). 'Impact of global rankings on higher education research and the production of knowledge'. Citeseer.
- Hazelkorn, E. (2015). *Rankings and the Reshaping of Higher Education: The Battle for World-Class Excellence*. London: Palgrave Macmillan.
- Hazelkorn, E. (2021). 'Are rankings (still) fit for purpose?'. In H. van't Land, A. Corcoran and D.-C. Iancu (eds), *The Promise of Higher Education*, pp. 293–299. Cham: Springer.
- Heckman, J. J. (1979). 'Sample selection bias as a specification error', *Econometrica: Journal of the Econometric Society*, **47**, pp. 153–161.
- Hirsch, J. E. (2005). 'An index to quantify an individual's scientific research output', *Proceedings of the National Academy of Sciences*, **102**, pp. 16,569–16,572.
- Huang, M.-H. and W.-Y. C. Lin (2011). 'Probing the effect of author self-citations on h index: a case study of environmental engineering', *Journal of Information Science*, **37**, pp. 453–461.
- Karataş-Özkan, M. and E. Chell (2015). 'Gender inequalities in academic innovation and enterprise: a Bourdieuan analysis', *British Journal of Management*, **26**, pp. 109–125.
- Kullak, F. S., J. J. Baker and H. Woratschek (2021). 'Enhancing value creation in social purpose organizations: business models that leverage networks', *Journal of Business Research*, **125**, pp. 630–642.
- Laasch, O. (2018). 'Beyond the purely commercial business model: organizational value logics and the heterogeneity of sustainability business models', *Long Range Planning*, **51**, pp. 158–183.
- Larsen, D. and J. J. Watson (2001). 'A guide map to the terrain of gift value', *Psychology & Marketing*, **18**, pp. 889–906.
- Li, M., S. Shankar and K. K. Tang (2011). 'Why does the USA dominate university league tables?', *Studies in Higher Education*, **36**, pp. 923–937.
- Lieberman, M. B. and D. B. Montgomery (1988). 'First-mover advantages', *Strategic Management Journal*, **9**, pp. 41–58.
- Marginson, S. (2006). 'Dynamics of national and global competition in higher education', *Higher Education*, **52**, pp. 1–39.
- Marginson, S. (2008). 'Global field and global imagining: Bourdieu and worldwide higher education', *British Journal of Sociology of Education*, **29**, pp. 303–315.
- Marginson, S. (2022). 'Global science and national comparisons: beyond bibliometrics and scientometrics', *Comparative Education*, **58**, pp. 125–146.
- Marginson, S. and M. Van der Wende (2007). 'To rank or to be ranked: the impact of global rankings in higher education', *Journal of Studies in International Education*, **11**, pp. 306–329.
- Massa, L., C. L. Tucci and A. Afuah (2017). 'A critical assessment of business model research', *Academy of Management Annals*, **11**, pp. 73–104.
- Maton, K. (2005). 'A question of autonomy: Bourdieu's field approach and higher education policy', *Journal of Education Policy*, **20**, pp. 687–704.
- McAdam, M., K. Miller and R. McAdam (2017). 'University business models in disequilibrium – engaging industry and end users within university technology transfer processes', *R&D Management*, **47**, pp. 458–472.
- McAdam, M., K. Miller and R. McAdam (2021). 'A micro level investigation of stakeholder motives on university technology transfer business models', *Studies in Higher Education*, **46**, pp. 1–14.
- McDonald, R. E., J. J. Masselli and B. Chanda (2021). 'Nonprofit business model innovation as a response to existential environmental threats: performing arts in the United States', *Journal of Business Research*, **125**, pp. 750–761.
- Mendoza, P., A. M. Kuntz and J. B. Berger (2012). 'Bourdieu and academic capitalism: faculty "habitus" in materials science and engineering', *The Journal of Higher Education*, **83**, pp. 558–581.
- Miller, K., J. Cunningham and E. Lehmann (2021). 'Extending the university mission and business model: influences and implications', *Studies in Higher Education*, **46**, pp. 915–925.
- Miller, K., M. McAdam and R. McAdam (2014). 'The changing university business model: a stakeholder perspective', *R&D Management*, **44**, pp. 265–287.
- Mryglod, O., Y. Holovatch and R. Kenna (2022). 'Big fish and small ponds: why the departmental h-index should not be used to rank universities', *Scientometrics*, **127**, pp. 3279–3292.
- Myers, L. and J. Robe (2009). *College Rankings: History, Criticism and Reform*. Washington, DC: Center for College Affordability and Productivity.
- Naidoo, R. (2004). 'Fields and institutional strategy: Bourdieu on the relationship between higher education, inequality and society', *British Journal of Sociology of Education*, **25**, pp. 457–471.
- O'Shea, R. P., T. J. Allen, A. Chevalier and F. Roche (2005). 'Entrepreneurial orientation, technology transfer and spinoff performance of US universities', *Research Policy*, **34**, pp. 994–1009.
- Pfeffer, J. and C. T. Fong (2004). 'The business school "business": some lessons from the US experience', *Journal of Management Studies*, **41**, pp. 1501–1520.
- Portes, A. (1998). 'Social capital: its origins and applications in modern sociology', *Annual Review of Sociology*, **24**, pp. 1–24.
- Posselt, T., N. Abdelkafi, L. Fischer and C. Tangour (2019). 'Opportunities and challenges of higher education institutions in Europe: an analysis from a business model perspective', *Higher Education Quarterly*, **73**, pp. 100–115.
- Schaltegger, S., F. Luedeke-Freund and E. G. Hansen (2016). 'Business models for sustainability: a co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation', *Organization & Environment*, **29**, pp. 264–289.
- Seelos, C. and J. Mair (2005). 'Social entrepreneurship: creating new business models to serve the poor', *Business Horizons*, **48**, pp. 241–246.
- Semadeni, M., M. C. Withers and S. Trevis Certo (2014). 'The perils of endogeneity and instrumental variables in strategy research: understanding through simulations', *Strategic Management Journal*, **35**, pp. 1070–1079.
- Sengupta, A. and A. S. Ray (2017). 'Choice of structure, business model and portfolio: organizational models of knowledge transfer offices in British universities', *British Journal of Management*, **28**, pp. 687–710.
- Siegel, D. S. and S. Leih (2018). 'Strategic management theory and universities: an overview of the special issue', *Strategic Organization*, **16**, pp. 6–11.
- Siegel, D. and D. Teece (2015). 'Special issue of strategic organization: "strategic management theory and universities"', *Strategic Organization*, **13**, pp. 163–165.
- Śliwa, M., R. Kerr and S. Robinson (2021). 'The implications of the political situation in the UK for firms: a Bourdieusian perspective', *British Journal of Management*, **32**, pp. 363–368.
- Smith, J. K. and R. L. Smith (2016). 'Socially responsible investing by universities and colleges', *Financial Management*, **45**, pp. 877–922.
- Spieth, P., S. Schneider, T. Clauß and D. Eichenberg (2019). 'Value drivers of social businesses: a business model perspective', *Long Range Planning*, **52**, pp. 427–444.
- Stinebrickner, T. R. and R. Stinebrickner (2000). *The Relationship between Family Income and Schooling Attainment: Evidence from a Liberal Arts College with a Full Tuition Subsidy Program*. Research Report No. 2000-8. London, ON: Department of Economics, University of Western Ontario.
- Tatli, A., M. Ozbilgin and M. Karatas-Ozkan (2015). *Pierre Bourdieu, Organization, and Management*. New York: Routledge.
- Teece, D. J. (2010). 'Business models, business strategy and innovation', *Long Range Planning*, **43**, pp. 172–194.

- Teece, D. J. (2018). 'Managing the university: why "organized anarchy" is unacceptable in the age of massive open online courses', *Strategic Organization*, **16**, pp. 92–102.
- Tsui, B. (2021). 'Share the mission: philanthropy and engagement for universities'. In A. O. Al-Youbi, A. H. M. Zahed and A. Atalar (eds), *International Experience in Developing the Financial Resources of Universities*, pp. 79–88. Cham: Springer.
- Tykkyläinen, S. and P. Ritala (2021). 'Business model innovation in social enterprises: an activity system perspective', *Journal of Business Research*, **125**, pp. 684–697.
- Volkwein, J. F. and K. V. Sweitzer (2006). 'Institutional prestige and reputation among research universities and liberal arts colleges', *Research in Higher Education*, **47**, pp. 129–148.
- Wacquant, L. (1998). 'Pierre Bourdieu'. In R. Stones (ed.), *Key Sociological Thinkers*. London: Palgrave.
- Walker, J. T., E. Fenton, A. Salter and R. Salandra (2019). 'What influences business academics' use of the Association of Business Schools (ABS) list? Evidence from a survey of UK academics', *British Journal of Management*, **30**, pp. 730–747.
- Watson, J. and J. Widin (2015). 'Maintaining the status quo: symbolic violence in higher education', *Higher Education Research & Development*, **34**, pp. 658–670.
- Zott, C. and R. Amit (2010). 'Business model design: an activity system perspective', *Long Range Planning*, **43**, pp. 216–226.
- Zott, C., R. Amit and L. Massa (2011). 'The business model: recent developments and future research', *Journal of Management*, **37**, pp. 1019–1042.

Rachel Bocquet is Full Professor of Strategy and Innovation Management at University Savoie Mont Blanc (France). A researcher at the IREGE Institute, her field of research is centred on the determinants of technological and organizational innovations and the study of their complementarities. She is also currently investigating corporate social responsibility and its relationships with (open) innovation and value creation.

Gaëlle Cotterlaz-Rannard is a Lecturer in Entrepreneurship and Innovation at the University of Sussex (UK). Prior to her current position, Gaëlle received the prestigious postdoctoral mobility grant fully funded by the Swiss National Science Foundation (SNSF) at the School of Management, University of Bath. In 2021, Gaëlle successfully completed her doctoral studies, earning a PhD in Management from the University of Geneva and Université of Savoie Mont-Blanc. Passionate about the voluntary sector, Gaëlle's research primarily revolves around social and environmental issues, corporate and NGO partnerships and business models. She has published several communications in academic journals such as *NVSQ*, as well as presenting her work at international conferences.

Michel Ferrary is a Professor of Management at the University of Geneva – Graduate School of Economy and Management – and affiliated scholar at Skema Business School. He received a PhD in Management from HEC Paris (1997) and a HDR from the University of Toulouse (2004). His research interests are related to social networks, complex network theory, stakeholder theory and sociology of organizations. He has published several papers in prominent academic journals on these different topics.

## Supporting Information

Additional supporting information can be found online in the Supporting Information section at the end of the article.