

# Competition, competitiveness, and competitive advantage in higher education institutions: a systematic literature review

Patience Fubara Hart & Waymond Rodgers

**To cite this article:** Patience Fubara Hart & Waymond Rodgers (26 Dec 2023): Competition, competitiveness, and competitive advantage in higher education institutions: a systematic literature review, *Studies in Higher Education*, DOI: [10.1080/03075079.2023.2293926](https://doi.org/10.1080/03075079.2023.2293926)

**To link to this article:** <https://doi.org/10.1080/03075079.2023.2293926>



© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



[View supplementary material](#)



Published online: 26 Dec 2023.



[Submit your article to this journal](#)



Article views: 353





[View related articles](#)



[View Crossmark data](#)

# Competition, competitiveness, and competitive advantage in higher education institutions: a systematic literature review

Patience Fubara Hart <sup>a</sup> and Waymond Rodgers <sup>a,b</sup>

<sup>a</sup>Department of Accounting, Finance, and Economics, University of Hull, Hull, UK; <sup>b</sup>Department of Accounting and Information Systems, University of Texas, El Paso, TX, USA

## ABSTRACT

The higher education (HE) sector has witnessed escalating competition, resulting in an increase in scholarly interest. Despite this, a comprehensive review of the existing literature in this domain remains absent. Thus, based on Tranfield et al.'s (2003) methodology, we systematically review 80 articles published between 2012 and 2022, extracted from four databases, namely Scopus, Web of Science, University of Hull (UoH), UK library database, and Google Scholar; with focus on competition, competitiveness, and competitive advantage in higher education institutions (HEIs). We present these three concepts, their sources, types, implications, and improvement strategies, while noting their interconnectedness. In our discussion, we highlight that although competition in HE results from both internal and external sources, internal competition is attributable largely, to external pressures from the government, ranking institutions, and global corporations. Additionally, we observe that competition has both positive and negative consequences, with the latter having a stronger impact on institutions, academics, and students. Consequently, we advocate that a balanced approach is required to optimize institutional performance and growth. This systematic review offers six contributions bothering on future research trajectories, significance of HEIs, strategic insights for practitioners, a harmonious balance between competitiveness and service quality, the governments' impact, and conceptual clarity via two frameworks introduced. The first framework illustrates the interconnections between the three focal concepts, and the second visualizes the interplay among diverse resources for which HEIs strive. This paper is therefore vital for scholars and practitioners, in the face of persistent competition in the HE sector.

## ARTICLE HISTORY

Received 3 June 2023  
Accepted 7 December 2023


## KEYWORDS

Competition;  
competitiveness;  
competitive advantage;  
higher education  
institutions; systematic  
literature review

## Introduction

The HE sector plays a vital role in local and national growth by creating jobs, developing skilled workers, and generating export earnings (Cejnar and Duke 2018). For example, the United Kingdom (UK)'s HE sector is a significant source of export, with international student fees contributing £7.3 billion annually (Universities UK 2021). Similarly, in the United States (US), international students

**CONTACT** Waymond Rodgers  [w.rodgers@hull.ac.uk](mailto:w.rodgers@hull.ac.uk)  Department of Accounting, Finance, and Economics, University of Hull, Cottingham Road, Hull HU6 7RX, UK; Department of Accounting and Information Systems, University of Texas, El Paso, TX 79902, USA

 Supplemental data for this article can be accessed online at <https://doi.org/10.1080/03075079.2023.2293926>.

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group  
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

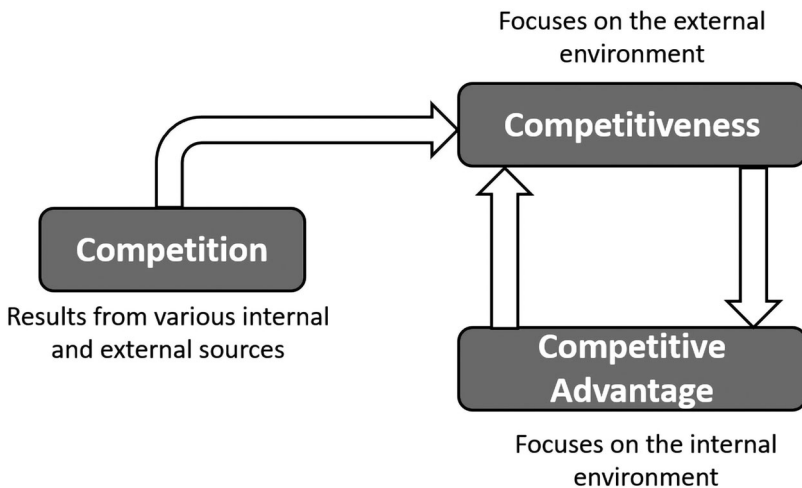
contribute \$36.9 billion yearly to the economy (AGB 2019). Thus, the HE sector is crucial for a sustainable economy and should be efficiently and effectively managed to ensure its seamless operations.

One factor with substantial impact on the operations of the HE sector is the increasing level of competition, a phenomenon that has garnered both attention and critique. Heightened competition has resulted in a dynamic transformation of HE (Juříková, Kocourek, and Ližbetinová 2021; Mahmood et al. 2020) stemming from various internal and external sources. Examples of internal sources of competition are the mechanisms introduced by the leadership, academics, and students of these institutions (Naidoo 2018). On the other hand, external sources of competition include the government, international organizations, global corporations, and ranking organizations (Musselin 2018). Considering that HEI leadership has limited control over external factors, this trend is anticipated to persist. Consequently, the imperative for HEI leadership to strengthen the competitiveness of their institutions remains of utmost importance.

Competitiveness, therefore, implies an institution's ability to position itself effectively within its industry to achieve and maintain advantages over competitors (Vasiliev 2022). For HEIs, competitiveness suggests the ability to secure a favourable position that enables the attraction of students, faculty, funding, and other critical resources (Secundo et al. 2017). It is the ability to offer distinct advantages that align with the expectation and needs of target stakeholders. Such competitive advantages stem from possessing and fully utilizing unique resources (Mahdi, Nassar, and Almsafir 2019) to outdo competition and enhance competitiveness.

Consequently, competitive advantage within the HE sector refers to an institution's ability to surpass competition by operating in ways that current or potential competitors do not operate, thus creating more value in the process. It is considered a key survival factor and is at the core of profitability and performance of any institution (Butt, Lodhi, and Shahzad 2020; De Haan 2015). Competitive advantage also involves leveraging unique strengths and capabilities to create value and achieve superior outcomes compared to other institutions (Mahdi, Nassar, and Almsafir 2021).

In HE, the dynamics of competition, competitiveness, and competitive advantage play an influential role in strategy formulation and its related outcomes. Hence, it is important to discuss these phenomena and highlight their individual and collective impact on institutions. Our review indicates that competition, competitiveness, and competitive advantage are related but distinct concepts. While competition emerges from a multitude of internal and external factors, the heightened levels of competition in HE instigate competitiveness which compel institutions to pursue competitive advantages. Furthermore, competitiveness reflects an institution's external position, while competitive advantage is more internal, suggesting a causal relationship (Vasiliev 2022). Figure 1 illustrates this relationship.



**Figure 1.** Relationship between competition, competitiveness, and competitive advantage. Source: Authors' generation.

Consequently, competition within HEIs has had a profound impact on the sector, reshaping various aspects of academia, institutional strategies, and the overall educational landscape. This surge in competition has also ushered in renewed scholarly interests resulting in investigations into its multifaceted dimensions (Krücken 2021). For instance, only 28 out of 80 articles selected for this review were published in the initial 5 years (between 2012 and 2017) of the last decade. In contrast, the remaining 52 articles were published between 2018 and 2022. Despite this growing academic curiosity, to date, there is no comprehensive and systematic review of the literature in this subject within the HE context.

In addition, there appears to be some ambiguity in the literature on what constitutes sources of competitive advantages and competitiveness, as well as what these concepts mean in HE (De Haan 2015). For instance, our review noted that Shaposhnykov et al. (2022) used the terms ‘competitiveness’ and ‘competitive advantage’ interchangeably while in reality, these two concepts are different. Providing clarity in these areas will therefore be beneficial to the leadership of HEIs as it will enable them to leverage their resources for strategic positioning, thereby ensuring sustainability.

It is against this backdrop that this review paper aims to synthesize the literature on competition, competitiveness, and competitive advantage in HEIs. We examine the existing research spanning the years 2012–2022, highlighting the increasing scholarly interest in these concepts within HE, and identifying possible directions for future studies. Using a rigorous, replicable, and systematic literature review methodology by Tranfield, Denyer, and Smart (2003), we address the following review questions (RQs) and bridge the earlier highlighted gaps:

RQ1 How did research on competition, competitiveness, and competitive advantage in HEIs evolve between 2012 and 2022?

RQ2 What is competition, its sources, types, and implications in HE?

RQ3 What constitutes competitiveness, its influencing factors, and how can it be improved?

RQ4 What does competitive advantage mean and what are its dimensions, sources, and enhancement strategies for HEIs?

RQ5 What is the future research direction for competition, competitiveness, and competitive advantage in HEIs?

One of the contributions of this review paper is that it proposes a conceptual framework that elucidates the intricate interrelationships among the three focal phenomena (Figure 1). This framework not only establishes a solid foundation for future research but also holds potential as a practical reference for practitioners. It can effectively guide strategic decision-making, assisting in achieving a balance between the pursuit of competitiveness and the delivery of high-quality services. Additionally, the paper introduces a second conceptual framework (Figure 5) that showcases the interconnected nature of the various resources for which HEIs compete. This second framework, in addition to its role as a springboard for future investigations, offers valuable insights for practitioners seeking to navigate the complexities of resource competition while upholding service excellence.

This paper is structured as follows: the next section outlines the methodology adopted for this review, followed by a descriptive analysis of prior research, including trends, publication journals, geographical considerations, theoretical foundations, and methodologies. Subsequently, we present the results of our review. The final three sections deliberate on the contributions, limitations, and avenues for future research, followed by our conclusion.

## Research methodology

### Search strategy

We implemented a systematic literature review methodology. Systematic reviews are rigorous, methodical, and comprehensive (Tranfield, Denyer, and Smart 2003). They enable the analysis of

numerous documents using predefined rules, thus ensuring transparency and replicability in the process (Aveyard 2019). Accordingly, this review began with an extensive search of pertinent databases using predetermined search terms.

The search terms were generated through a multi-step process. Initially, we identified keywords based on the review title 'Competitive Advantage in Higher Education Institutions'. These were 'Competitive Advantage' and 'Higher Education Institution'. Next, for 'Competitive Advantage', other related terms as 'Competitive Practices', 'Competitive Edge', 'Competitiveness' and 'Competition' were identified, while for 'Higher Education Institution', 'Higher Education', 'University', and 'College' were noted as related terms. A third step involved contacting three colleagues to recommend synonyms of the identified search terms. The responses received were then incorporated in the fourth and final step in the process. Table 1 states the keywords used in the various database searches.

To ensure comprehensiveness, we searched four databases. First, Scopus, the largest interdisciplinary scientific literature database (Paoloni, Modaffari, and Mattei 2021). Second, the Web of Science (WoS) database which provides access to articles across various disciplines. The third database was the UoH library database, to which the authors are affiliated, and the fourth was Google Scholar. Although similar search terms were used, database peculiarities led to differing search areas within each database. For instance, for Scopus and WoS, the search location was 'Title, Abstract, Keywords' while for the UoH library search, 'Title, any of these words' was used as the search location.

### ***Inclusion and exclusion criteria***

After the initial search, various inclusion and exclusion criteria were applied to ensure the relevance of the analyzed articles. Inclusion criteria included:

- Documents published between January 2012 and December 2022.
- Reviewed and published journal articles, book reviews, and book chapters.
- Due to the multidisciplinary nature of the databases, subject areas were limited to Business, Accounting, Management, Education, Economics, and Finance.
- Only articles in English were considered to overcome translation challenges.

To further refine the selection, articles not meeting the above inclusion criteria were excluded, alongside:

- Other types of publication such as conference papers and editorials.
- Documents initially selected but later deemed irrelevant to the review objectives.
- Duplicate documents identified, resulting from extraction by multiple search engines or links from the \* blinded database.
- Additional exclusions were applied after reviewing the abstracts of remaining articles.

Table 1 below presents the details and results of the search conducted.

### ***Search outcome***

The search was conducted diligently to ensure all relevant articles were included. Initial searches were not limited to 'title' only, resulting in numerous articles with keywords appearing 'anywhere in the article.' This accounted for the many documents returned. To apply the inclusion and exclusion criteria, the titles of all 9,883 returned articles were reviewed for relevance to the review objectives, excluding 9,554 articles. The title search ensured the inclusion of only pertinent articles, leaving 329 documents selected from the databases. Figure 2 schematically represents the screening protocols that led to 80 publications included in the final analysis.

**Table 1.** Databases search details and results.

Description	Details			
Keywords, Booleans, wild cards and truncations	'Competitive Advantage' OR Competi* AND Universit* OR 'College' OR 'Higher Institution' OR 'Higher Education*' OR 'Educational Organi*'			
Database	Scopus	WOS	*UoH library	Google Scholar***
Search location	Title, Abstract, Keywords	Title, Abstract, Author Keywords, Keywords Plus	Title, 'Any of these words'	'With exact phrases' and 'Anywhere in the article'
Count of documents per initial hit	49,821	27,342	41,522	4,447,600
Time frame – January 01, 2012, to December 29, 2022	26,021	20,188	40,074	1,107,600
Document types – Articles, Book Chapter, Book Review	19,814	13,488	2,283	108,190**
Subject area – Business, Management, Accounting, Economics, Econometrics and Finance	4,258	4,938	471*	Not applicable
Articles in English Language only	4,004	4,432	447	1,000
Articles selected after title review	102	143	64	20

Source: Authors' generation.

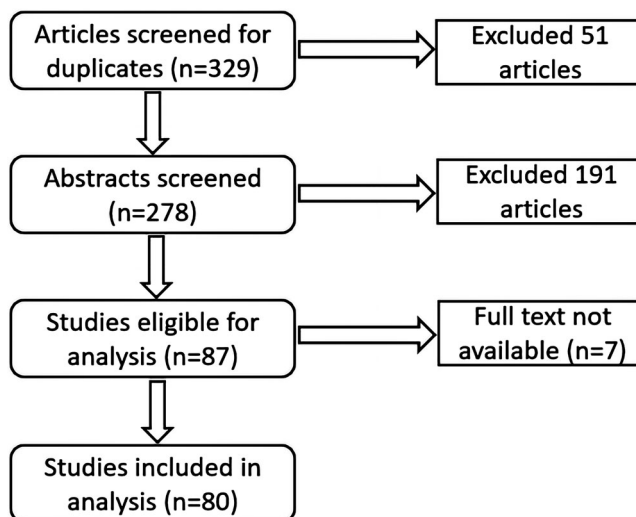
\*The subject area for UoH library search included 'Business, Economics and Education'.

\*\*The document type for the Google Scholar search was 'Review Articles' only.

\*\*\*Due to the nature of this database, the articles were sorted by relevance and the titles of the first 1,000 articles were reviewed and 20 included in the screening process.

## Descriptive Analysis – RQ1

This section presents a descriptive analysis of the reviewed 80 articles and addresses the first review question: 'How did research on competition, competitiveness, and competitive advantage in HEIs evolve between 2012 and 2022?'. Specifically, we report on the number of articles included in the



**Figure 2.** Systematic literature review search protocols and results. Source: Authors' generation (adapted from Moher et al. (2009)).

review per year, journals for publications, the theoretical framework/models adopted and the methodological considerations.

Articles per year

Figure 3 represents the number of articles included in the review per year. There was a notable increase in the number of articles from a total of 10 published until 2016 to a total of 80 in 2022.

Journals

The review included articles from 69 journals, with eight journals publishing more than one article. Academy of Strategic Management Journal, International Journal of Educational Management, and Problems and Perspectives in Management each published three articles. Journal of Business Research, Marketing and Management of Innovations, European Journal of Education, International Journal of Instruction, and Tertiary Education and Management each published two articles. The remaining 61 journals published one article each. Details of the journals where the selected articles were published can be found in the supplemental material for this article.

Geographical considerations

This section presents the locational focus of the selected studies. Six articles were purely review papers without specific locations, and four studies were based on multiple continents. Table 2 displays the article distribution by continents and cumulative percentages. Asia represents 45% of the reviewed articles, and along with Europe, they make up 74% of the total articles reviewed.

Theoretical framework

The theoretical framework serves as the foundation for a study (Grant and Osanloo 2014) and influences the research approach. Our review found that the resource-based view theory and Porter’s five

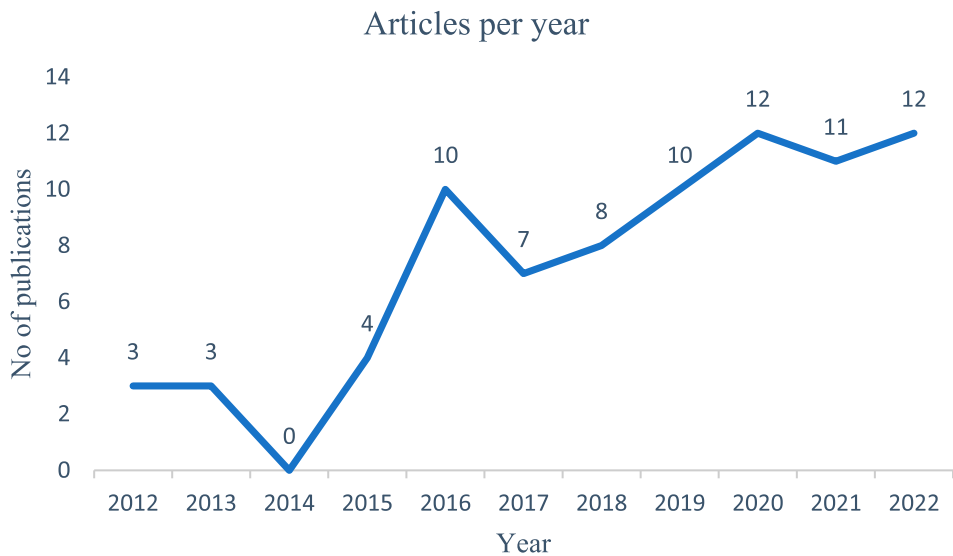


Figure 3. Number of articles published per year (n = 80). Source: Authors’ generation.

**Table 2.** Distribution of articles by continent and cumulative percentages.

Continents	Countries	Count ( <i>n</i> = 80)	Percentage
Asia	China, Malaysia, Indonesia, Russia, Pakistan, Vietnam, United Arabs Emirate, Hong Kong, Turkey	36	45%
Europe	United Kingdom, Serbia, Czech Republic, Portugal, Germany, Netherlands, Italy, Australia, Cyprus, Romania, Ukraine, Finland	23	74%
Africa	Nigeria, South-Africa	3	78%
Asia	Russia and Europe; China and Europe	2	80%
Europe	Germany and United States of America	1	81%
North America	Australia and United Kingdom	1	83%
Europe	India and United States of America	1	84%
Oceania	Mexico	1	85%
North America	Brazil, Columbia	2	88%
South America	United States of America, United Kingdom, Sweden, Finland, Netherlands, Australia, and Switzerland.	4	93%
Africa, Asia, Europe, North America, Oceania, and South America.	Review papers, no specific locations stated	6	100%
Not applicable			

Source: Authors' generation.

forces model were the two main management theories explaining competitive advantage from an institutional perspective. They were used in 15 and eight articles, respectively, either individually or combined with other theories/models. Other recurring theories included dynamic capabilities, stakeholders, and knowledge-based view theories. In 36 out of 80 reviewed studies, the theoretical framework or model was not identified. Supplemental material provides information on the theoretical frameworks/models used in the selected studies.

### Study types

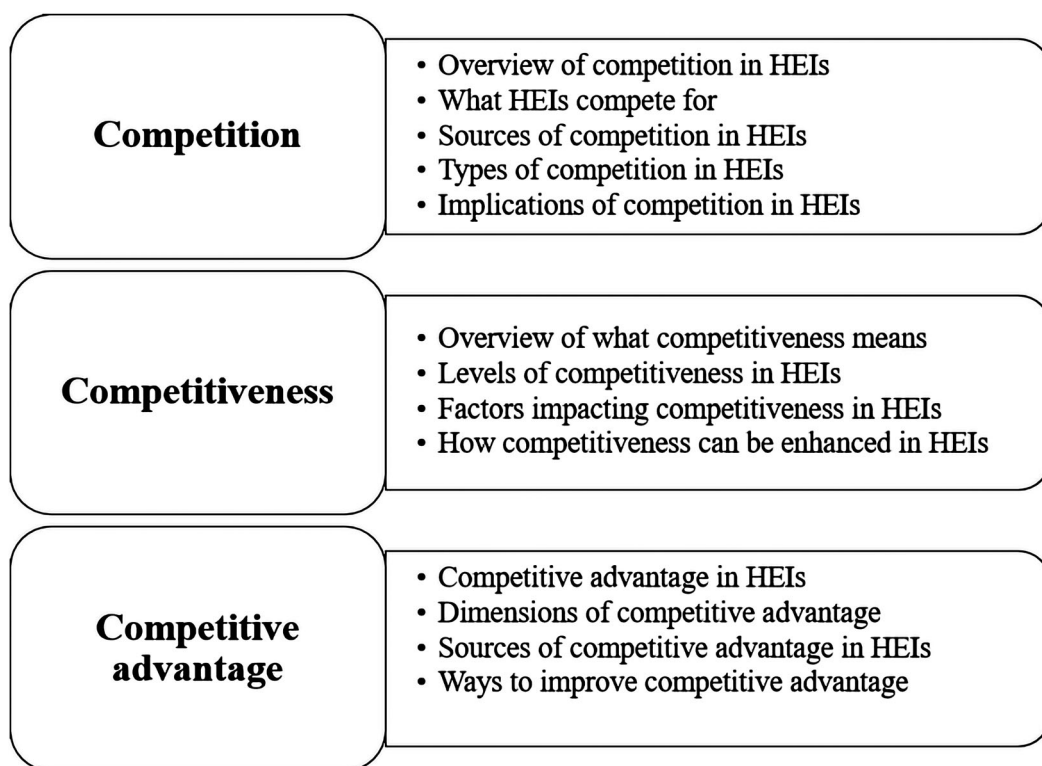
Out of the 80 articles reviewed, 17 (21%) were theoretical or descriptive, classified as review papers, with more (9 out of 17) occurring between 2012 and 2016. This may reflect scholars' initial efforts to understand the concepts of competition, competitiveness, and competitive advantage, as it applies to HEIs. Consequently, later years saw more empirical studies, with 35 (44%) using quantitative methods, 5 (19%) qualitative studies, and 13 (16%) mixed-method studies.

Data sources for the qualitative studies included structured and semi-structured interviews, while secondary data were collected through content analyzes. Most quantitative studies (30 out of 35) relied on primary data, using survey questionnaires. Two studies used secondary data, and three used both primary and secondary data. Mixed-method studies employed both qualitative and quantitative approaches, using surveys, interviews, content, and cluster analysis. See supplemental material for more details.

## Results

This section synthesizes the selected articles, revealing distinct themes and providing answers to RQ2, RQ3, and RQ4. We underscore the relationships between these themes and highlight their multifaceted impacts. Three themes identified, based on the main focus of the reviewed articles are competition (13 out of 80), competitiveness (24), and competitive advantage (39). The remaining four articles focus on two or all three themes. Supplemental material provides more details, and [Figure 4](#) displays the themes and the sub-themes.





**Figure 4.** Literature review themes and sub-themes. Source: Authors' generation.

### **Competition – RQ2**

In this section, we address the question: 'What is competition, its sources, types, and implications in HE?'

#### **Overview of competition in HEIs**

Competition within HEIs has transformed the landscape resulting in a shift from students competing for placements to HEIs actively competing for students. This transformation is underscored by the increasing prominence of international students as vital intellectual resources and stakeholders (Krücken 2021; Teixeira et al. 2013). While emphasizing the extent of competition in HEIs, Naidoo (2018: 606) described the phenomenon as a 'fetish' because of the controlling emotions of pleasure and power it wields. Despite being a powerful force, Musselin (2018) suggests HEIs can avoid competition by not responding to external demands. Nonetheless, we argue that the survival of an institution adopting a non-responsive approach becomes increasingly challenging in the face of the profound and extensive competition and its far-reaching implications.

Bourini and Al-Bourini (2017) defined competition as rivalry over scarce resources among parties. In HE, it includes institutions competing for students, faculties, funding, and engaging in ranking processes (Wilkins 2019). HEIs face competition due to scarce or perceived scarce resources (Kettunen et al. 2022), and the phenomenon endures because competitors observe and influence each other (Krücken 2021).

In the competitive HE sector, public and private institutions must invest in resources, review offerings, and evaluate their positions continuously (Alfaware and Atan 2021). These distinct types of HEIs experience differing dynamics within a competitive landscape (Teixeira et al. 2013): market competition for for-profit organizations and academic competition for not-for-profit

institutions (De Haan 2015). Private HEIs experience more market competition, while public institutions need to understand their subsector (research or teaching-focused) to grasp competition dynamics.

### *What HEIs are competing for?*

HEIs compete for resources, notably students, particularly international students (Qazi et al. 2021; Teixeira et al. 2012). In this regard, Teixeira et al. (2013) noted a transition in the Portuguese HE system, where the traditional competition among students for enrolment places has shifted to a situation where HEIs are now actively competing to attract students. This shift is not unique to the Portuguese HE system, but is observed in institutions across Europe, America, and other parts of the Western world. In addition, limited government funding drives competition for international students and their fees (Cejnar and Duke 2018), making them essential intellectual resources and stakeholders (de Freitas Langrafe et al. 2020).

HEIs not only compete for students but also for highly qualified staff, including professors and lecturers (Musselin 2018). Attracting top students and academics helps institutions produce high-quality articles (Krücken 2021), which in turn attracts research grants, another scarce resource (Qazi et al. 2021). Furthermore, securing grants not only increases the quantity and quality of publications but also contributes to the improvement of rankings and overall competitiveness.

With numerous international and national ranking organizations (Allen 2021), HEIs are pressured to compete for top positions (Antoniuk et al. 2019; Tasopoulou and Tsiotras 2017). This is important because rankings, influenced by globalization, guide potential international students' choices (Ayhan and Özdemir 2022). Hence, higher-ranked institutions attract more international students,



**Figure 5.** Relationship between resources for which institutions compete. Source: Authors' generation.

generating increased funding from fees. Our review highlights the relationship between resources for which HEIs compete and this is illustrated in [Figure 5](#).

### *Sources of competition*

By sources of competition, we mean various factors or forces that result in competition in the HE sector. According to Naidoo (2018), these include internal factors like institutional leaders, academics, and students, and external forces such as government, international organizations, and global corporations. Institutional leaders drive competition by managing external pressures to protecting their institutions and advancing their internal agenda through marketing activities, student recruitment, and global rankings (Al-Shaikh 2015; Fadahunsi and Pelsler 2013; Hammond 2016). Academics maintain status and reputational hierarchies, while students create competition through surveys, complaints, and their flexibility and choices (Naidoo 2018).

Regarding external sources of competition, the government stands out as foremost and pivotal (Musselin 2018). Sergeeva (2016) remarked that the government fosters competition through legislative, administrative, and economic actions, enacting regulations, policies, or acts that direct HEIs' activities (Krücken 2021; Teixeira et al. 2013). For further details on how the government fosters competition, see Erhardt and von Kotzebue (2016) and Cejnar and Duke (2018).

The government also initiates competition economically by funding research and development in HEIs (Sergeeva 2016) and regulating educational services through licensing and accreditation (Tan, Goh, and Chan 2015). Additionally, administrative practices like Germany's Excellence Initiative (Erhardt and von Kotzebue 2016) and the UK's Research Excellence Framework (Kelly 2016), which are intended to foster high-standard research and enable comparisons, further exacerbates the level of competition between researchers and institutions.

Another external source of competition in the HE sector are international organizations and global corporations (Naidoo 2018). As international organizations, the World Bank enhances competition through loan conditions and encouraging low-income countries to deregulate while the Organisation for European Co-operation and Development (OECD) engages in global assessments, benchmarking, and policy comparisons. Due to their global reach, the influence of these international organizations on HE are significant. In addition, global/multinational corporations also create external competition by urging governments to open public education to private for-profit influences. Naidoo (2018) further states that these corporations shape HE policies for their own interests, ultimately driving competition.

### *Types of competition*

In the HE sector, the interplay between the system, state, and institutions, has led to various types of competition (Cejnar and Duke 2018). Generally, there is competition 'within' and 'between' HEIs (Krücken 2021; Musselin 2018). Competition 'within' is academic competition (De Haan 2015) while competition 'between' is natural competition (Sergeeva 2016). De Haan (2015) observed that competition between HEIs is attributable to external factors and could result in negative consequences if not checked. This type of competition is also linked to designations assigned to universities such as 'federal' or 'non-federal' (Sergeeva 2016); 'public' or 'private' (Butt, Lodhi, and Shahzad 2020). Public and private HEIs are noted to have complementary competition (Teixeira et al. 2013), although private HEIs may struggle to compete with their prestigious yet cheaper counterparts.

Relatedly, Naidoo (2018) identified three types of competition: intellectual, geopolitical, and status competition. Intellectual competition, which is a type of competition 'within', arises from academics' work, and results in competing scholarships within an institution. Geopolitical competition, on the other hand, involves revenue generation through international student recruitment and dissemination of productive knowledge. This form of competition is between institutions as they are regarded as revenue-generating sources as in the case for the increased rush for international students across the UK and Australia, as well as in other parts of Europe and the USA. Status competition, however, results mainly from governments and ranking organizations that develop vertical

stratification and cause competition between institutions. The UK's research excellence framework is an example of a source of status competition (Kelly 2016; Musselin 2018).

Lastly, Musselin (2018) identified four levels of competition: individual, institutional, national, and international. Individual competition is between academics within a HEI, while institutional competition is between HEIs. However, institutional competition has evolved to national and international competition, with an increasing focus on research universities competing for international recognition and students. This has led to institutions branching out to foreign countries and developing an international market for education (Bourini and Al-Bourini 2017).

### *Implications of competition in HEIs*

Competition in the HE sector has positive and negative consequences. On a positive note, De Haan (2015) observed that competing for funding leads to improved teaching and research quality, while vying for students enhances marketing capabilities. Furthermore, competition drives the adoption of total quality management systems, ensuring stakeholder satisfaction (Abimbola, Oyatoye, and Oyenuga 2020). Moreover, HEIs are compelled to strengthen their strategic planning by pursuing national and international process by seeking national and international accreditation, demonstrating their capacity to meet standards and ultimately enhancing their performance and services (Bourini and Al-Bourini 2017; Teixeira et al. 2013).

Academic competition at a global level has fostered new forms of cooperation and more strategic collaborations among academics and institutions (Boscor 2015; Musselin 2018). Moreover, competition has driven HEIs to differentiate themselves through branding and the introduction of new programs aimed at attracting a broader student base and achieving increased diversification (Erhardt and von Kotzebue 2016; Teixeira et al. 2012; 2022). Consequently, this diversification enables HEIs to cater to local needs and accommodate students from diverse backgrounds (Ngoc 2018; Teixeira et al. 2022). In light of this, HEIs may explore niche markets or emulate successful competitors due to their diversification efforts (Teixeira et al. 2012). Other positive outcomes of competition in HEIs are branding and reputation building (Erhardt and von Kotzebue 2016; Juříková, Kocourek, and Ližbetinová 2021).

Despite the advantages of competition in HEIs, some notable drawbacks were also identified. Multiple forms of competition have been shown to undermine creativity and innovation, increase tensions, and strain relationships (Krücken 2021). Moreover, excessive competition has the potential to legitimize inequalities and perpetuate hierarchies both within and between national HE systems (Naidoo 2018). Legitimization, in this context, signifies that competition is viewed as a lawful means through which the affluent and influential sustain inequalities by leveraging existing belief systems. Additionally, competition could force institutions to prioritize competitiveness over core values of teaching, research, and social mission (Garrett-Jones and Turpin 2012; Shypulina, Gryshchenko, and Bilenko 2016).

### *Competitiveness in HEIs – RQ3*

In this section, the question: 'What constitutes competitiveness, its influencing factors, and how can it be improved?' is answered.

#### *Overview of competitiveness in HEIs*

Competitiveness in HEIs have various dimensions, reference points or levels such as macro or national, meso or sectoral, and micro or institutional (Duran-Hernandez, Cornejo-Macias, and Flores-Mora 2017; Stonkiene, Matkeviciene, and Vaiginiene 2016). This multifaceted perspective underscores the sector's ability to engage in educational exports, withstand competition, attract resources, provide employment, and foster a knowledge-based culture. Competitiveness also hinges on an institution's capacity to combine resources and competencies in unique ways, thereby achieving a distinctive edge. Duran-Hernandez, Cornejo-Macias, and Flores-Mora (2017)

noted that a definition could also depend on the type of product/service as well as the timeframe under consideration, whether short or long-term.

According to Yang et al. (2020), competitiveness in HE is the ability of an institution to leverage its strengths and engage in educational exports. It is also the capacity of a HEI to withstand competition from other HEIs, attract resources, provide employment, and contribute to a knowledge-based culture (Kabók, Radišić, and Kuzmanović 2017; Vasiliev 2021). Hashim, Tlemsani, and Duncan Matthews (2022) defined it as an institution's capacity to generate and sustain a competitive environment locally and internationally. These definitions view competitiveness in terms of an institution's position in external environments and are outward-focused (Hashim, Tlemsani, and Duncan Matthews 2022).

An institution's competitiveness further relies on its capacity to uniquely combine its resources and competencies (Muneeb et al. 2020; Stonkiene, Matkeviciene, and Vaiginiene 2016). This ability is crucial for the survival of an institution in the highly competitive HE sector. Moreover, the competitiveness level of the HEIs in a country is reflected in global organizations' rankings (Mahdi, Nassar, and Almsafirc 2021), implying that an institution's competitiveness is measured by its ranking relative to other institutions (Mahdi, Nassar, and Almsafirc 2021).

### *Levels of competitiveness*

Competitiveness is evident at different levels: macro, meso, and micro (Stonkiene, Matkeviciene, and Vaiginiene 2016; Vasiliev 2021). Macro refers to the national level, meso to the group or sectoral level, and micro to the enterprise or institutional level (Stonkiene, Matkeviciene, and Vaiginiene 2016). Vasiliev (2022) offers an alternative categorization, designating the macro level as strategic/industry level, meso as tactical/group level, and micro as the situational level, which is the most fundamental point where competitive strategies are enacted.

A different categorization for competitiveness presented by Shaposhnykov et al. (2022) are competitiveness at the entire national economic system, the national HE system, the institutions themselves, and their educational products and services. From this classification, we infer that competitiveness at the product/service level impacts that of the institution, which in turn impacts all institutions within the nation, and finally the nation's ability to be competitive. The fact that competitiveness is evident at multiple levels is an indication of its pervasiveness, thus resulting in HEIs looking inwards to enhance their competitive advantages to remain competitive.

### *Factors impacting competitiveness*

Shaposhnykov et al. (2022) presented a comprehensive overview of factors that influence competitiveness, categorizing them into political, economic, social/demographic, and technological. However, we have categorized the identified factors that impact competitiveness as human and non-human factors. Non-human factors are strategic flexibility, modern collaborative technologies, and infrastructure (Muneeb et al. 2020; Vasiliev 2021). Others include quality of educational service, advertising abilities of the institutions, economic and financial potentials (Zayarnaya 2019) and the organizational climate which in turn influences human resource competencies and ultimately organizational behaviours (Maulani and Hamdani 2019).

The human factors, on the other hand, include human capital development which ensures the continuous generation and dissemination of knowledge (Antoniuk et al. 2019), stakeholder support which includes support from the government, faculties, and top-management (Tan et al. 2017) and the services of educational agents that aid the internalization programs of institutions (Sarkar and Perényi 2017). These human and non-human factors combine to impact the competitiveness on a HEI.

### *How can competitiveness be improved or enhanced?*

Competitiveness can be improved through government and institution-related actions. For instance, adequate funding from the government can enhance the competitiveness of HEIs (Tan, Goh, and

Chan 2015). Additionally, the government can support local institutions to change public perception about public schools and improve employment opportunities for graduates by improving the economic and living conditions of the country (Yang et al. 2020). Other government strategies include encouraging local universities to recruit international students while maintaining quality and supporting research and training services (Tsarenko 2016; Yang et al. 2020). Simplifying administrative processes and better recognition of academic qualifications are also recommended strategies (Yang et al. 2020).

Institutions, on the other hand, can enhance their competitiveness through improved marketing practices (Fadahunsi and Pelser 2013), quality improvement and quality assurance systems (Antoniuk et al. 2019; Tan, Goh, and Chan 2015), as well as increased digitalization (Hashim, Tlemsani, and Duncan Matthews 2022), through adopting emerging technologies (Vasiliev 2021). Furthermore, HEIs could maintain a positive brand image (Juříková, Kocourek, and Ližbetinová 2021) through internationalization and becoming entrepreneurial institutions who have wider societal impact (Qassas and Areiqat 2020; Zayarnaya 2019; Zhang et al. 2016). They can also improve their relationships with their external environments and their positions in the national and global educational marketplace (Zayarnaya 2019) to enhance their level of competitiveness.

### ***Competitive Advantage in HEIs – RQ4***

This section responds to the question: ‘What does competitive advantage mean and what are its dimensions, sources, and enhancement strategies for HEIs?’

#### ***Overview of competitive advantage in HEIs***

In the pursuit of excellence, HEIs strive for competitive advantage, a phenomenon that has been examined from various perspectives. Adopting a resources perspective, Lo and Tian (2020) defined competitive advantage as the core competencies of an institution that can deliver better outcomes over competitors in the same industry through the use of valuable, scarce, inimitable, and irreplaceable resources. Al-Shaikh (2015) on the other hand, embraced a strategy context and explained competitive advantage to mean an institution’s ability to achieve lasting profitability, above industry average and above alternate investment opportunities in other industries.

Pederzini (2018) provided a distinct perspective on competitive advantage by examining it from the viewpoint of university leaders’ ‘sensemaking’ of the concept. This approach centres on the leaders’ subjective interpretation of the concept, focusing on how it aligns the institution’s internal context with external factors for exceptional performance. Effective leadership, capable of defining and attaining strategic objectives, is of paramount importance for institutions seeking to cultivate competitive advantages (Fantauzzi et al. 2019), thus making leaders who comprehend the concept more valuable to their institutions.

#### ***Dimensions of competitive advantage***

Hesterly and Barney (2014) identified two forms of competitive advantage: temporary and sustainable. Temporary competitive advantage is short-lived, while sustainable competitive advantage is long-lasting. According to Alfaware and Atan (2021), an organization can sustain its competitive advantage by possessing resources and capabilities that are difficult to reproduce, giving it long-term superiority over competitors. Therefore, the length of time an organization retains its leadership position determines whether an advantage is temporary or sustained.

Additionally, Alfaware and Atan (2021) and Al-Shaikh (2015) categorized competitive advantage into cost and product/service differentiation, largely based on Porter’s five forces model. Cost differentiation enables organizations to provide similar products/services at reduced cost, while product/service differentiation results from providing better products or delivering better service than competitors. While the former can be achieved through efficiency, buying cheaper raw materials, and



engaging skilled workers, the latter creates customer loyalty (Pederzini 2018; Qassas and Areiqat 2020).

Lastly, Aldosari (2021) identified five dimensions of competitive advantage: cost, quality, flexibility, creativity, and output. Cost advantage is achieved through efficient resource utilization, quality advantage through highly rated academic accreditations (Al-Awawdeh and Al-Sharairi 2012), and flexibility advantage through the provision of diverse programs (Aldosari 2021). Creativity advantage comes from implementing innovative ideas (Alfawaire and Atan 2021), while output advantage is achieved through graduates' affiliation and loyalty to the institution, as well as its output in scientific research (Adebayo et al. 2019; Qazi et al. 2021).

### *Sources of competitive advantage*

The resource-based view theory suggests that intellectual capital, categorized as human, structural, and relational capital, is the primary source of competitive advantage for institutions (Qassas and Areiqat 2020). Human capital refers to the knowledge, skills, and experience of individuals within an institution (Mahdi, Nassar, and Almsafirc 2021; Pedro, Leitão, and Alves 2019; Rodgers 2016), while structural capital pertains to the values and systems within the institution (Leitner et al. 2014). Relational capital, on the other hand, describes the institution's connections with internal and external stakeholders and their perception of the institution (Rodgers et al. 2020; Yu and Huo 2019). Our review identified various sources of competitive advantage based on this categorization (see Table 3).

Some other sources of competitive advantage worth emphasizing are quality service, location, and resource combination. Quality service is a strategic strength which seeks to create, maintain, and develop competitive advantages of institutions (Ghobehei et al. 2019; Tan, Goh, and Chan 2015). Likewise, the institution's location offers advantages against threat of entry as well as attract eminent staff and students (Teixeira et al. 2013). Location could also enhance or inhibit the ability of other sources of competitive advantage (Aydin 2013). Lastly, despite the wealth of resources an institution possesses, the ability to combine these resources in meaningful ways is key to achieving competitive advantages. Consequently, scholars such as Kettunen et al. (2022) and Marulanda-Grisales and Vera-Acevedo (2022) have noted the importance of resource combinations as a source of competitive advantage. Resource combination implies the re-allocation of existing resources to avoid competitive pressure and could also include deploying new resources to enhance current competitive position (Ebzeeva et al. 2022).

### *Ways to improve competitive advantage*

HEIs can enhance their competitive advantages by managing their intellectual capital processes and constituents effectively. For instance, knowledge management, a sub-process of intellectual capital, can lead to the generation of new ideas, better innovation, and increased competitive advantage (Alfawaire and Atan 2021; Jošanov-Vrgović et al. 2020; Mahmood et al. 2020). Collaborative relationships can also help institutions foster knowledge diffusion, increase research outputs, and patent innovations, all of which contribute to competitive advantages (Alfawaire and Atan 2021; Jošanov-Vrgović et al. 2020).

Two other aspects of intellectual capital management are stakeholder management and human capital development. Effective stakeholder management can be achieved by involving them in decision-making, understanding their preferences, and meeting their demands (Al-Awawdeh and Al-Sharairi 2012; Lo and Tian 2020; Panda et al. 2019). Human capital development on the other hand, involves sustaining competitive leadership, effective human resource management, capacity building, and employee behavioural management (Emeagwal and Ogbonmwan 2018). Skilful and customer-oriented employees are also particularly significant in enhancing service quality (Butt, Lodhi, and Shahzad 2020).

Enhancing organizational development is suggested as another avenue to improve competitive advantage in HEIs (Almutairi and Rizk 2021). The four aspects identified here are functional,

**Table 3.** Sources of competitive advantage for HEIs.

Sources of Competitive Advantage	Intellectual Capital Components	Author(s)	Comments
Knowledge	Human capital	Mahdi, Nassar, and Almsafir 2019	Knowledge, residing largely in humans, has been identified as the most significant resource impacting competitive advantage.
Talented faculty and students	Human capital	de Freitas Langrafe et al. 2020	HEIs largely depend on talented and experienced faculties to deliver on institution's missions of research and teaching.
Leaders' appreciation of competitive advantage	Human capital	Pederzini 2018	One of the most foundational sources of competitive advantage driving the other sources as it is impracticable for an institution to enhance its competitive advantages when its leaders are unable to make sense of the concept within the peculiarities of the institutions.
Strategic leadership capabilities	Human capital	Mahdi, Nassar, and Almsafir (2021)	Closely linked to the leaders' appreciation of the concept of competitive advantage is their abilities to strategically develop human and social capital to rightly position the institution to be competitive.
Improved research and training structures	Structural capital	de Freitas Langrafe et al. 2020	A significant component for developing human and relational capital is the ability of an institution to continually engage in research to identify newer and better ways to operate.
Human resource management practices	Structural capital	Emeagwal and Ogbonmwan 2018; Abimbola, Oyatoye, and Oyenuga 2020; Alfawaire and Atan 2021	Human resource management practices directly link with the development of human capital.
Staff retention	Structural capital	Butt, Lodhi, and Shahzad 2020	Staff retention is said to directly impact on competitive advantage by attracting more highly qualified staff as well as an indirect effect by improving education quality.
Knowledge management practices	Structural capital	Mahdi, Nassar, and Almsafir 2019; Zhang et al. 2016; Alfawaire and Atan 2021	Knowledge management practices and HEIs leaders' mastery of these practices are considered a significant source of both competitive advantage and sustained competitive advantage.
Big data management	Structural capital	Marulanda-Grisales and Vera-Acevedo 2022	Big data management is linked to innovative teaching and learning. To successfully generate competitive advantage, institutional management need to create a culture of using data for educational decision-making.
Enhancements in technology	Structural capital	Boscor 2015; Marulanda-Grisales and Vera-Acevedo 2022	Enhancements in technology is a necessity for institutions that are constantly looking for means to differentiate themselves, develop and grow, hence a significant source of competitive advantage.
Positive brand image	Structural capital	de Freitas Langrafe et al. 2020; Amirkhanova et al. 2017; Panda et al. 2019; Qazi et al. 2021	Brand image impacts the perception of stakeholders of the institution and is obtained from a positive perception of service quality, and trust evoked by the institutions.
Strong reputation	Relational capital	Qazi et al. 2021	A positive brand image has direct bearing on a strong positive reputation, which is a source of competitive advantage. It also contributes to students' loyalty, is a positive signal to prospective students and serves as a distinguishing factor for the institution.

(Continued)



**Table 3.** Continued.

Sources of Competitive Advantage	Intellectual Capital Components	Author(s)	Comments
Stakeholder loyalty	Relational capital	(Tusyanah, Fadlilah, and Khafid 2020; Qazi et al. 2021)	Stakeholder (especially staff and students) loyalty directly results from a strong reputation and decreases the risk of important stakeholders choosing alternative options.

Source: Authors' generation.

behavioural, structural, and technological. Functional organizational development focuses on developing the institution's structure, mission, strategies, and goals, while the behavioural aspect centres on individuals and involves improving their skills and capabilities through training. The structural aspect aims to improve the entire organizational structure, including the redistribution of responsibilities and redesigning job functions, communication methods, and organograms. The technological aspect, on the other hand, involves utilizing modern technologies to improve quality, productivity, and reduce costs (Hashim, Tlemsani, and Duncan Matthews 2022). Other strategies to achieve improved competitive advantages include developing new services to enhance performance, service quality, customer, and employee satisfaction (Suwarno, Widodo, and Hayu 2021). Service quality is considered a vital aspect of generating and maintaining competitive advantages in HEIs (Jošanov-Vrgović et al. 2020).

Collaboration is considered another key factor in enhancing the competitive advantage of HEIs (Boscor 2015). HEIs can achieve this through partnerships with foreign institutions for joint research projects and exchange programs. Collaborations with alumni can also be valuable, such as inviting them to participate in university programs and collaborating with their affiliated companies. Such collaborations can result in donations to the institution and employment opportunities for new graduates.

Marketization and accreditation also improve competitive advantage (Wilkins 2019), especially for institutions seeking to expand internationally. High-quality market intelligence that identifies changes in student preferences and new competitors is essential (Garrett-Jones and Turpin 2012). Moreover, marketing tools can positively impact brand image and employee attitudes, leading to improved service quality (Amirkhanova et al. 2017; Fantauzzi et al. 2019).

Similar to service quality is the overall total quality management which links customer satisfaction to continual quality improvement efforts by organizational personnel (Abimbola, Oyatoye, and Oyenuga 2020). Adebayo et al. (2019) suggest that total quality management can enhance competitive advantage, specifically in areas such as top-management and employee commitment, team approach, customer-centeredness, continuous development, and competitive benchmarking. Benchmarking helps institutions compare themselves to better performers to achieve quality improvement and stay competitive (Tasopoulou and Tsiotras 2017).

## Discussion

This section offers valuable insights and considerations. Competition within HE is a persistent phenomenon, given its diversity and multiplicity of sources. While we have highlighted the existence of both positive and negative consequences of competition, it is noteworthy that these can vary depending on the context, regulatory framework, and how institutions respond to competitive pressures. Indeed, healthy competition has the potential to yield positive outcomes, however, an excessive focus on competition without proper regulation and balance can lead to negative consequences for institutions, academics, and students. Having established these, one important question we will attempt to answer in this section (and which we posit should be a guiding principle in the

strategic decision-making processes of HE institutional leadership) is: Do the positive consequences (or benefits) of competition outweigh its negative consequences (or repercussions) or is the converse more applicable? To assist in addressing this question, we present our insights to some of the consequences of competition in HEIs identified from our review.

Competition in HEIs has driven investments in enhancing the quality of teaching and research. This strategic focus aims to attract students, academics, and funding, ultimately resulting in better educational outcomes and research outputs (De Haan 2015; Sergeeva 2016). Whilst this may hold true in theory, we argue that this may not be the case across board in reality. For example, there have been instances of oversized classes resulting from significant reductions in international students' fees, without a corresponding increase in faculty. As a result, academics have found themselves confronted with class sizes that are four times larger than what they were accustomed to handling in the past. Hence, excessive competition within HEIs can potentially lead to reduced quality in teaching and research, as often observed when the pursuit of competitive advantages places excessive emphasis on quantity rather than the quality of outputs (Krücken 2021)

There are conflicting views on some other reported benefits of competition in HEIs. For instance, certain scholars have pointed out that competition can serve as a catalyst for innovation and creativity (Alfawaire and Atan 2021; Mahmood et al. 2020). However, contrasting viewpoints suggests that excessive competition might stifle creativity and innovation (Krücken 2021). This counterproductive outcome can occur when institutions are driven to prioritize conformity and high metrics rather than invest their limited resources in exploring novel concepts. Perhaps, this is a potential for future investigation as it may be pertinent to understand the extent to which competition either enhances or inhibits innovativeness. Similarly, despite some studies suggesting that competition within HEIs could foster collaboration, there are indications that it can simultaneously escalate tensions and strain relationships among researchers, research groups, and institutions (Ellemers 2021). This dichotomy prompts an important query: What is the true impact of competition on collaboration among academics and institutions – does it enhance or hinder cooperation?

Two other benefits of competition in HEIs as previously noted are diversification/differentiation (Al-Shaikh 2015; Aydin 2013) and branding/reputation building (Erhardt and von Kotzebue 2016; Juříková, Kocourek, and Ližbetinová 2021). Diversification and differentiation enrich the academic experience for students while catering to a wider interest. Similarly, the emphasis on branding and reputation building amplifies an institutions' visibility, fostering relationships and collaborations that contribute to the advancement of education, research, and societal engagement. It is noteworthy however, that a dent to an institution's reputation could have far-reaching implications with resultant impact on the ability of such an institution to compete.

Excessive competition in HE has also been associated with the reproduction and endorsement of inequalities within individual institutions and across national HE systems (Naidoo 2018; Neves, Ferraz, and Nata 2017). It amplifies disparities between HEIs, exacerbating imbalances in resources, opportunities, and accessibility. A classic example could be the Russell Group Universities in the UK and their US equivalent namely, the Ivy League schools. This occurrence raises crucial questions about how the pursuit of competitive advantage might unintentionally widen the gap between institutions, potentially entrenching unequal educational outcomes and the impact of these on students.

Another phenomenon linked to excessive competition is grade inflation. Researchers such as Bachan (2017) and Klein (2019) have explored how the competition for superiority among institutions can inadvertently lead to a devaluation of academic rigor. The pressure to attract students and maintain an appearance of excellence can drive institutions to inflate grades, compromising the credibility of academic achievements. This presents an intricate dilemma where the pursuit of competitive distinction may inadvertently undermine the credibility of the very qualifications it seeks to promote.

From the foregoing, we argue that within the HE sector, the negative consequences of competition outweigh its benefits. The question then is: How can institutional leaders and policymakers effectively manage and strike a balance in the level of competition within the HE sector, aiming

to mitigate its adverse consequences to the greatest extent possible? Consequent upon this, it is prudent for us to recommend that HE institutional leadership engages in regular evaluations of their unique contexts. Such assessments should serve as a guiding compass for the decisions they make, particularly in relation to their strategies for responding to external forces of competition.

The escalation and pervasiveness of external sources of competition exerts substantial dominance over the functioning of HEIs. Consequently, the push from external forces markedly surpasses the influence from internal sources. Thus, we contend that internal triggers of competition, particularly those instigated by institutional leaders, are essentially responses to the compelling forces originating externally. For instance, in the UK, in order to participate and excel in the administrative REF exercise (an external source of competition), institutional leadership have continued to prioritize and emphasize that their existing academics continue to strive for research publications at 'highly ranked' or 'reputable' journals. Early career academics are also not exempt, as a standard academic job advertisement entails the necessity to provide a list of publications in 'reputable' journals, among other relevant documents. Consequently, the 'publish or perish' slogan (Eftekhari, Maghsoudnia, and Dorkoosh 2021; Van Dalen 2021) seems applicable to both experienced and early career academics alike. Such internal policies serve as an inherent origin of competition among academics. Accordingly, studies have reported significant pressures experienced by academics, leading, in some cases, to stress and mental health issues (Darabi, Macaskill, and Reidy 2017; Eftekhari, Maghsoudnia, and Dorkoosh 2021; Johnson and Lester 2022), potentially diverting their focus from effective teaching and impactful research (Eftekhari, Maghsoudnia, and Dorkoosh 2021). Although, it is noteworthy that most HEIs have several wellness programs in place to support their academics, it is pertinent to suggest that perhaps, more preventative approaches may be equally (or even more) beneficial.

In our opinion, the implications of academics grappling with the pressure to not only survive but also thrive in their careers are profound. A potential coping mechanism might involve downplaying certain aspects of their roles that receive less oversight or monitoring, such as academic supervision (Gruzdev, Terentev, and Dzhafarova 2020). This trend becomes evident in the frequency of doctoral students encountering changes in their supervisory arrangements during their studies, often due to suboptimal supervisory relationships (Schmidt and Hansson 2021) or supervisors who adopt a notably 'hands-off' approach (Gruzdev, Terentev, and Dzhafarova 2020). Consequently, this situation frequently results in prolonged completion times for doctoral candidates, prompting them to seek personal supervisory assistance from private service providers, or in some instances, even leading to outright failure (Prazeres 2017). Significant implications loom for both academics and institutions as the inability to successfully guide a doctoral student to graduation carries the potential to inflict reputational harm on both the individual academics and the institution as a whole (Tuma et al. 2021), further impacting the competitiveness of the institution.

However, the situation isn't entirely bleak. Healthy competition, both within and among HEIs, can serve as a catalyst for continuous improvement and the implementation of robust total quality management strategies. This can involve addressing the needs of stakeholders, measuring performance against industry best practices, and adopting innovative approaches. Moreover, fostering collaborations between academics and institutions remains a crucial aspect. By forging meaningful partnerships with other HEIs, industry players, alumni, and international organizations, knowledge dissemination, research excellence, and resource sharing can be promoted. Such collaborative efforts hold the potential to elevate an institution's standing within the competitive landscape.

The concept of 'coopetition' which was originally introduced by Branderburger and Nalebuff (1997) succinctly encapsulates the afore-mentioned idea. It involves competitors collaborating while simultaneously competing to achieve mutual benefits (DiVanna 2020). This concept has been extensively applied in business and strategy, consistently leading to mutually advantageous outcomes for involved parties, as illustrated by Branderburger and Nalebuff (2020). For HEIs, it is crucial to strategically embrace coopetition more fervently (Zhang and Goh 2022). By doing so, they can replicate the success seen in other non-education sectors, thereby harnessing its full potential. Indeed, coopetition seems to be the future for HE (Zhang and Goh 2022).

## Contributions

This review paper contributes to the existing literature in six significant ways. First, is its impact on future research. By providing a comprehensive overview of the theoretical frameworks employed in the selected studies, we not only expatiate on the existing intellectual domain but also lay the foundation for future research that can advance the academic community. Additionally, by establishing a clear conceptual framework, this review paper becomes a stepping stone for both experienced and emerging scholars to apply similar or integrated theoretical constructs in their own investigations. Moreover, the methodologies employed within these studies can serve as models for replication or extension by subsequent researchers. By proposing directions for future research, this paper effectively serves as a guide for future studies.

Second, our examination of research trends spanning the years 2012 and 2022, not only underscore the evolution of scholarly interest in the examined themes but also emphasize their escalating significance in academic dialogues and institutional strategies. This chronological analysis accentuates the growing prominence of these concepts and their multifaceted implications. Furthermore, we provide conceptual clarity by distinguishing between competition, competitiveness, and competitive advantage within the HE context, culminating in the introduction of an illustrative framework that elucidates their interconnectedness. This conceptual clarity is poised to reinforce understanding and aid strategic decision-making by highlighting the nuanced dynamics at play.

Third, in support of practitioners, this review sheds light on the pivotal role played by HE in fostering local and national economic growth through job creation, skill development, and export earnings. By presenting concrete examples from the UK and the US, it underscores the economic significance of the HE sector for sustainability and emphasizes the need for effective management. Additionally, it serves as an invaluable knowledge repository for practitioners, offering them a comprehensive grasp of the discussed concepts and serving as a guide for further knowledge assimilation. Equipped with this understanding, practitioners are empowered to make well-informed strategic choices, enabling them to navigate the challenges presented by both internal and external sources of competition.

Fourth, the synthesis of our findings also provides a holistic comprehension of the interplay between competition, competitiveness, and competitive advantage in the HE sector. This understanding then empowers HEIs in the formulation of strategic blueprints, leveraging their unique resources to enhance their competitive positioning, and contribute positively to the advancement of education and research. However, it is crucial to acknowledge that the ever-evolving nature of competition in the HE sector necessitates continuous adaptation and strategic foresight from institutions.

Fifth, the insights into the consequences of competition equip institutional leadership in striking a balance between staying ahead of the competition and delivering quality products/services to stakeholders. For example, the recommended strategies can assist institutions in attracting more international students while concurrently providing the necessary resources to support them. In addition, the delineated strategies for generating and sustaining competitive advantages become indispensable tools in navigating the competition realm and ensuring operational viability.

Lastly, governments, acting as influential sources of competition in the HE sector, can gain insight into the implications of their actions or inactions, thereby motivating potential course corrections and the provision of requisite support to HEIs. In this regard, the knowledge disseminated through this review paper has the potential to empower governments in their decision-making, thereby fostering the sustained success of the HE sector.

## Limitations and future directions for research – RQ5

Here, in addition to the limitations of our study, we also address the fifth RQ for this review:

What is the future research direction for competition, competitiveness, and competitive advantage in HEIs?

The manual approach adopted in this review may have included some element of bias with regards to the selection of articles included in the final analysis. However, the co-author reviewed and verified the selections made, thus minimizing the risk of selection bias. This approach was also adopted in the classification of the articles into the identified themes which formed the bases of the descriptive and results sections of this paper. Another limitation could be that our review included only publications from 2012 to 2022. Prior years were not considered because these concepts had not always been associated with HEIs, as such relatively limited research was conducted in this area. For instance, only about 25% of the articles included in this review were published in the earlier years (from 2012 to 2016).

The afore-mentioned limitations present some opportunities for future review which can adopt a more historical view to give a more robust overview of studies conducted in this research area. Furthermore, we have identified the need for future research to adopt an empirical longitudinal approach to substantiate or refute the consequences of competition and competitiveness to various categories of stakeholders. Such studies could be beneficial to practitioners, policy makers, and researchers, as well as significantly impact on the government and the economy. Thirdly, we proposed a framework depicting the relationships between various resources for which institutions compete (see [Figure 5](#)). Empirical studies could be designed to tests these relationships and their impact on institutions. In this regard, comparative studies may also be conducted between various types of institutions in a national context, for example between federal (public) and non-federal (private) institutions.

Our discussions prompted some thoughts/questions which could also serve as an avenue for further research. These are: (i) do the positive consequences (or benefits) of competition outweigh its negative consequences (or repercussions) or is the converse more applicable?, (ii) to what extent does competition enhance or inhibit innovativeness in HEIs?, (iii) what is the true impact of competition on collaboration among academics and institutions – does it enhance or hinder cooperation?, and (iv) how can institutional leaders and policymakers effectively manage and strike a balance in the level of competition within the HE sector, aiming to mitigate its adverse consequences to the greatest extent possible?

## Conclusion

The aim of this review was to comprehensively examine the literature on competition, competitiveness, and competitive advantage in HEIs from 2012 to 2022. Our findings revealed the intricate relationship among these interconnected yet distinct concepts, which are responsible for shaping institutional strategies and outcomes. We identified diverse sources of competition, both internal and external, with the potential for both positive and negative impacts. We noted that the influence of external competition, often triggered internal competition, with potential adverse consequences, such as stress, reduced service quality, and damaged individual and/or institutional reputation. To mitigate these challenges, we recommend balancing competitiveness with service excellence, total quality management, collaborations, and strategic differentiation.

This review paper is the first to comprehensively analyze this research area, making it an important resource for scholars, practitioners, governments, and other policy makers. It not only serves as a foundation for future research, but also offers a solid basis for informed strategic decision-making. Our contributions include the development of two conceptual frameworks (one illustrating the interconnections between the three focal concepts, and the second visualizing the interplay among diverse resources for which HEIs strive), examination of research trends, an emphasis on the economic significance of HE for growth and sustainability, as well as an in-depth discussion on the consequences of competition within HE. As a result, we call for practitioners to ensure a balance between fostering healthy competition and mitigating its potential downsides. Additionally,

recognizing the substantial potential for this research field to influence both national and international advancement, we extend an invitation to scholars to explore this domain further. By doing so, we can collaboratively contribute to the preservation and advancement of the global educational system, thereby ensuring a more secure future for our world.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## ORCID

Patience Fubara Hart  <http://orcid.org/0000-0002-3686-0067>

Waymond Rodgers  <http://orcid.org/0000-0003-4349-5667>

## References

- Abimbola, B., E. Oyatoye, and O. Oyenuga. 2020. *Total Quality Management, Employee Commitment and Competitive Advantage in Nigerian Tertiary Institutions*. A study of the University of Lagos.
- Adebayo, O. P., O. J. Kehinde, O. O. Ogunnaiké, O. P. Olaoye, and O. D. Adesanya. 2019. "Corporate Brand Identity and Service Quality in Higher Education Management." *Polish Journal of Management Studies* 20), <https://doi.org/10.17512/pjms.2019.20.2.04>.
- AGB. 2019. *Higher Education Contributes to a Strong Economy*. Accessed August 9, 2022. <https://agb.org/guardians-campaign/higher-education-contributes-to-a-strong-economy/>.
- Al-Awawdeh, W. M., and J. A. Al-Sharairi. 2012. "The Relationship Between Target Costing and Competitive Advantage of Jordanian Private Universities." *International Journal of Business and Management* 7 (8): 123.
- Al-Shaikh, M. S. 2015. "Factors Affecting the Competitive Advantage for the Marketing of Educational Services in Jordanian Universities: Case of Zarqa University." *International Journal of Marketing Studies* 7 (5): 147.
- Aldosari, S. A. M. 2021. "The Relationship Between Leaders' Mastery of Tacit Knowledge Management Skills and the Achievement of Competitive Advantage at Universities." *Journal of Sustainable Finance & Investment*, 1–19.
- Alfawaire, F., and T. Atan. 2021. "The Effect of Strategic Human Resource and Knowledge Management on Sustainable Competitive Advantages at Jordanian Universities: The Mediating Role of Organizational Innovation." *Sustainability (Basel, Switzerland)*, 13 (15): 8445.
- Allen, R. M. 2021. "Commensuration of the Globalised Higher Education Sector: How University Rankings act as a Credential for World-Class Status in China." *Compare: A Journal of Comparative and International Education* 51 (6): 920–38. <https://doi.org/10.1080/03057925.2019.1686607>.
- Almutairi, N. Z., and E. S. I. Rizk. 2021. "The Role of Organizational Development in Achieving the Competitive Advantage of University of Hail as one of the Requirements of The Vision of the Kingdom of Saudi Arabia 2030." *International Journal of Education and Information Technologies* 15: 71–82. <https://doi.org/10.46300/9109.2021.15.8>.
- Amirkhanova, L., E. Y. Bikmetov, U. G. Zinnurov, and A. Z. Kharisova. 2017. "Management of University Competitiveness Based on Image Creating Research." *Journal of Business and Retail Management Research* 11 (2).
- Antoniuk, L., I. Kalenyuk, O. Tsykun, and M. Sandul. 2019. "Rankings in the higher education competitiveness management system." *Problems and Perspectives in Management* 17 (4): 325. [https://doi.org/10.21511/ppm.17\(4\).2019.27](https://doi.org/10.21511/ppm.17(4).2019.27).
- Aveyard, H. 2019. *Doing a Literature Review in Health and Social Care: A Practical Guide*. Fourth edition. London: Open University Press.
- Aydin, O. T. 2013. "Location as a Competitive Advantage to Attract Students: An Empirical Study from a Turkish Foundation University." *International Review of Management and Marketing* 3 (4): 204–11.
- Ayhan, I., and A. Özdemir. 2022. A practical framework for ranking universities by their competitive advantages: a mixed methods study on foundation universities in Turkey. *The TQM Journal* (ahead-of-print).
- Bachan, R. 2017. "Grade Inflation in UK Higher Education." *Studies in Higher Education* 42 (8): 1580–600. <https://doi.org/10.1080/03075079.2015.1019450>.
- Boscor, D. 2015. "Sources of Competitive Advantage in the Field of Higher Education. Case Study: Transilvania University of Brasov." *Bulletin of the Transilvania University of Brasov. Economic Sciences. Series V* 8 (2): 379.
- Bourini, I. F., and F. A. Al-Bourini. 2017. "fuzzy Logic Approach to Simulate the Role of Academic Performance and Competition on Strategic Intention Within Jordanian Higher Education Institutions." *International Journal of Business and Society* 18 (S3): 567–84.
- Brandenburger, A., and B. Nalebuff. 2020. *The Rules of Co-Opetition*. *Harvard Business Review*. Accessed September 11, 2023. <https://hbr.org/2021/01/the-rules-of-co-opetition>.



- Branderburger, A., and B. Nalebuff. 1997. *Co-opetition: A Revolution Mindset That Combines Competition and Cooperation: The Game Theory Strategy That's Changing the Game of Business*. New York: Currency Doubleday.
- Butt, A., R. N. Lodhi, and M. K. Shahzad. 2020. "Staff Retention: A Factor of Sustainable Competitive Advantage in the Higher Education Sector of Pakistan." *Studies in Higher Education* 45 (8): 1584–604. <https://doi.org/10.1080/03075079.2019.1711038>.
- Cejnar, L., and A. Duke. 2018. "Competition and Fair Trading Practices in the Higher Education Sector: A Comparative Review of the Position in the UK and Australia." *ECLR: European Competition Law Review*, 31–6.
- Darabi, M., A. Macaskill, and L. Reidy. 2017. "Stress among UK Academics: Identifying who Copes Best." *Journal of Further and Higher Education* 41 (3): 393–412. <https://doi.org/10.1080/0309877X.2015.1117598>.
- de Freitas Langrafe, T., S. R. Barakat, F. Stocker, and J. M. G. Boaventura. 2020. A Stakeholder Theory Approach to Creating Value in Higher Education Institutions. *The Bottom Line*.
- De Haan, H. H. 2015. "Competitive Advantage, What Does it Really Mean in the Context of Public Higher Education Institutions?" *International Journal of Educational Management*.
- DiVanna, J. 2020. *Coopetition in The New Economy - Duke Corporate Education, Duke Corporate Education - Leadership for What's Next*. Accessed 11 September 2023. <https://www.dukece.com/insights/coopetition-in-the-new-economy/>.
- Duran-Hernandez, A., J. M. Cornejo-Macias, and J. A. Flores-Mora. 2017. *Competitive Advantages with the use of ICT (Moodle) in the new Curriculum at the University of Guadalajara, México, Competition Forum*. American Society for Competitiveness.
- Ebzeeva, Y., N. Dubinina, N. Dugalich, A. Levshits, and D. Nakisbaev. 2022. "International Rankings on the Competitiveness of Universities in Global Educational Space." *Revista on Line de Política e Gestão Educacional*, e022066–e022066.
- Eftekhari, R. B., N. Maghsoudnia, and F. A. Dorkoosh. 2021. "Publish or Perish: An Academic Status Anxiety." *Pharmaceutical Nanotechnology* 9 (4): 248–50. <https://doi.org/10.2174/2211738509666210921130229>.
- Ellemers, N. 2021. "Science as Collaborative Knowledge Generation." *British Journal of Social Psychology* 60 (1): 1–28. <https://doi.org/10.1111/bjso.12430>.
- Emeagwal, L., and K. O. Ogbonmwan. 2018. "Mapping the Perceived Role of Strategic Human Resource Management Practices in Sustainable Competitive Advantage." *Academy of Strategic Management Journal* 17 (2): 1–19.
- Erhardt, D., and A. von Kotzebue. 2016. "Competition Unleashed: Horizontal Differentiation in German Higher Education." *Tertiary Education and Management* 22 (4): 333–58. <https://doi.org/10.1080/13583883.2016.1233993>.
- Fadahunsi, T., and T. Pelsier. 2013. "Marketing Practices for Competitiveness in Public FET Colleges in Gauteng." *South African Journal of Higher Education* 27 (4): 838–57.
- Fantauzzi, C., R. Frondizi, N. Colasanti, and G. Fiorani. 2019. "Creating Value in the Entrepreneurial University: Marketization and Merchandising Strategies." *Administrative Sciences* 9 (4): 82. <https://doi.org/10.3390/admsci9040082>.
- Garrett-Jones, S., and T. Turpin. 2012. "Globalisation and the Changing Functions of Australian Universities." *Science Technology & Society* 17 (2): 233–74. <https://doi.org/10.1177/097172181101700203>.
- Ghobehei, M., F. Sadeghvaziri, E. Ebrahimi, and K. Afshar Bakeshloo. 2019. "The Effects of Perceived Brand Orientation and Perceived Service Quality in the Higher Education Sector." *Eurasian Business Review* 9 (3): 347–65. <https://doi.org/10.1007/s40821-018-00115-4>.
- Grant, C., and A. Osanloo. 2014. "Understanding, Selecting, and Integrating a Theoretical Framework in Dissertation Research: Creating the Blueprint for your "house"." *Administrative Issues Journal* 4 (2): 12–26.
- Gruzdev, I., E. Terentev, and Z. Dzharfarova. 2020. "Superhero or Hands-off Supervisor? An Empirical Categorization of PhD Supervision Styles and Student Satisfaction in Russian Universities." *Higher Education* 79: 773–89. <https://doi.org/10.1007/s10734-019-00437-w>.
- Hammond, C. D. 2016. "Internationalization, Nationalism, and Global Competitiveness: A Comparison of Approaches to Higher Education in China and Japan." *Asia Pacific Education Review* 17 (4): 555–66. <https://doi.org/10.1007/s12564-016-9459-0>.
- Hashim, M. A., I. Tlemsani, and R. Duncan Matthews. 2022. *A Sustainable University: Digital Transformation and Beyond*. Education and Information Technologies, 1–36.
- Hesterly, W., and J. Barney. 2014. *Strategic Management and Competitive Advantage*. Pearson/Education.
- Johnson, A. P., and R. J. Lester. 2022. "Mental Health in Academia: Hacks for Cultivating and Sustaining Wellbeing." *American Journal of Human Biology* 34: e23664. <https://doi.org/10.1002/ajhb.23664>.
- Jošanov-Vrgović, I., A. J. Vuković, N. Papić-Blagojević, and D. Bolesnikov. 2020. "Analysis of Quality of Services in Higher Education Institutions." In *Handbook of Research on Creating Sustainable Value in the Global Economy*, 349–65. IGI Global.
- Juříková, M., J. Kocourek, and L. Ližbetinová. 2021. *Building the Prestige of a University as a Tool to Achieve Competitiveness*. Communication Today.
- Kabók, J., S. Radišić, and B. Kuzmanović. 2017. "Cluster Analysis of Higher-Education Competitiveness in Selected European Countries." *Economic Research-Ekonomska Istraživanja* 30 (1): 845–57. <https://doi.org/10.1080/1331677X.2017.1305783>.

- Kelly, A. 2016. "Measuring Research Competitiveness in UK Universities: Introducing the Herfindahl Index to the 2008 and 2014 Research Assessment Exercises." *Assessment & Evaluation in Higher Education* 41 (8): 1206–22. <https://doi.org/10.1080/02602938.2015.1074979>.
- Kettunen, K., K. Alajoutsijärvi, J. A. Hunnes, and R. Pinheiro. 2022. "Emergence and Early Institutionalization of Competition in Higher Education: Evidence from Finnish Business Schools." *Tertiary Education and Management*, 1–25.
- Klein, G. C. 2019. *Statistical Effects of Competitiveness, Grade Inflation, and Prestige on Peer Assessment as Perceived by Current and Former Students at Institutions of Higher Education*. Keiser University.
- Krücken, G. 2021. "Multiple Competitions in Higher Education: A Conceptual Approach." *Innovation* 23 (2): 163–81. <https://doi.org/10.1080/14479338.2019.1684652>.
- Leitner, K.-H., A. Curaj, S. Elena-Perez, J. Fazlagic, K. Kalemis, Z. Martinaitis, G. Secundo, M.-A. Sicilia, and K. Zaks. 2014. *A Strategic Approach for Intellectual Capital Management in European Universities: Guidelines for Implementation*. Bucharest: UEFISCDI.
- Lo, M. F., and F. Tian. 2020. "Enhancing Competitive Advantage in Hong Kong Higher Education: Linking Knowledge Sharing, Absorptive Capacity and Innovation Capability." *Higher Education Quarterly* 74 (4): 426–41. <https://doi.org/10.1111/hequ.12244>.
- Mahdi, O. R., I. A. Nassar, and M. K. Almsafir. 2019. "Knowledge Management Processes and Sustainable Competitive Advantage: An Empirical Examination in Private Universities." *Journal of Business Research* 94: 320–34. <https://doi.org/10.1016/j.jbusres.2018.02.013>.
- Mahdi, O. R., I. A. Nassar, and M. K. Almsafir. 2021. "Strategic Leadership Capabilities and Sustainable Competitive Advantages in Private Universities." *Academy of Strategic Management Journal* 20 (2): 1–23.
- Mahmood, Z., W. Iftikhar, D. M. Vistro, and H. I. Tariq. 2020. "An Examination of the use of Knowledge Management/ Knowledge Management Systems in Achieving and Sustaining Competitive Advantage in Higher Education Institutes: A Case Study of Asia Pacific University, Malaysia." *International Journal of Scientific and Technology Research* 9 (4): 3653–8.
- Marulanda-Grisales, N., and L. D. Vera-Acevedo. 2022. "Analysis of Core Competences and Competitive Advantages in Higher Education Institutions: An Intellectual Capital Approach." *Knowledge Management Research & Practice*, 1–15.
- Maulani, G. A. F., and N. A. Hamdani. 2019. "The Influence of Information Technology and Organizational Climate on the Competitiveness of Private Universities in Indonesia." *International Journal of Recent Technology and Engineering* 8 (1).
- Moher, D., A. Liberati, J. Tetzlaff, D. G. Altman, D. Altman, G. Antes, D. Atkins, V. Barbour, N. Barrowman, and J. A. Berlin. 2009. "Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement (Chinese Edition)." *Journal of Chinese Integrative Medicine* 7 (9): 889–96. <https://doi.org/10.3736/jcim20090918>.
- Muneeb, D., K. W. Khong, C. Ennew, and M. Avvari. 2020. "Conceptualizing and Validating Resource Recombination in Context of Higher Educational Institution Competitiveness." *International Journal of Organizational Analysis*.
- Musselin, C. 2018. "New Forms of Competition in Higher education." *Socio-Economic Review* 16 (3): 657–83. <https://doi.org/10.1093/ser/mwy033>.
- Naidoo, R. 2018. "The Competition Fetish in Higher Education: Shamans, Mind Snares and Consequences." *European Educational Research Journal* 17 (5): 605–20. <https://doi.org/10.1177/1474904118784839>.
- Neves, T., H. Ferraz, and G. Nata. 2017. "Social Inequality in Access to Higher Education: Grade Inflation in Private Schools and the Ineffectiveness of Compensatory Education." *International Studies in Sociology of Education* 26 (2): 190–210. <https://doi.org/10.1080/09620214.2016.1191966>.
- Ngoc, D. M. 2018. "Competitive Strategies of Vietnamese Higher Educational Institutions." *International Higher Education* 94: 33–4. <https://doi.org/10.6017/ihe.2018.0.10546>.
- Panda, S., S. C. Pandey, A. Bennett, and X. Tian. 2019. "University Brand Image as Competitive Advantage: A two-Country Study." *International Journal of Educational Management*.
- Paoloni, P., G. Modaffari, and G. Mattei. 2021. "Knowledge Resources in the University Context: An Overview of the Literature." *Journal of Intellectual Capital* 22 (4): 703–24. <https://doi.org/10.1108/JIC-01-2020-0010>.
- Pederzini, G. D. A. 2018. "Neoliberal Awakenings: A Case Study of University Leaders' Competitive Advantage Sensemaking/ Gerardo David Abreu Pederzini." *Higher Education Policy* 31 (3): 405–22. <https://doi.org/10.1057/s41307-017-0066-4>.
- Pedro, E., J. Leitão, and H. Alves. 2019. "The Intellectual Capital of Higher Education Institutions." *Journal of Intellectual Capital* 20 (3): 355–81. <https://doi.org/10.1108/JIC-07-2018-0117>.
- Prazeres, F. 2017. "PhD Supervisor-Student Relationship." *Journal of Advances in Medical Education & Professionalism* 5 (4): 213–4.
- Qassas, K., and A. Areiqat. 2020. "Management Intellectual Capital and Its Role in Achieving Competitive Advantages at Jordanian Private Universities." *International Journal of Higher Education* 10 (2): 92–107. <https://doi.org/10.5430/ijhe.v10n2p92>.
- Qazi, Z., W. Qazi, S. A. Raza, and S. Q. Yousufi. 2021. "The Antecedents Affecting University Reputation and Student Satisfaction: A Study in Higher Education Context." *Corporate Reputation Review*, 1–19.
- Rodgers, W. 2016. *Knowledge Creation: Going Beyond Published Financial Information*. Hauppauge, NY: Nova Publication.



- Rodgers, W., W. Y. Degbey, T. J. Housel, and A. Arslan. 2020. "Microfoundations of Collaborative Networks: The Impact of Social Capital Formation and Learning on Investment Risk Assessment." *Technological Forecasting and Social Change* 161: 120295. <https://doi.org/10.1016/j.techfore.2020.120295>.
- Sarkar, A., and Á Perényi. 2017. "Education Agents as Competitiveness Enhancers of Australian Universities by Internationalisation Facilitation." *Entrepreneurial Business and Economics Review* 5 (4): 61–89. <https://doi.org/10.15678/EBER.2017.050403>.
- Schmidt, M., and E. Hansson. 2021. "'I Didn't Want to be a Troublemaker' – Doctoral Students' Experiences of Change in Supervisory Arrangements." *Studies in Graduate and Postdoctoral Education* 13 (1): 54–73. <https://doi.org/10.1108/SGPE-02-2021-0011>.
- Secundo, G., S. Elena- Perez, Ž Martinaitis, and K.-H. Leitner. 2017. "An Intellectual Capital Framework to Measure Universities' Third Mission Activities." *Technological Forecasting and Social Change* 123: 229–39. <https://doi.org/10.1016/j.techfore.2016.12.013>.
- Sergeeva, V. V. 2016. "Assessing Competition on the Russian University Market Using a Modified Panzar-Rosse Model." *Russian Education & Society* 58 (1): 12–29. <https://doi.org/10.1080/10609393.2016.1205919>.
- Shaposhnykov, K., I. Shaposhnykova, K. Tanashchuk, V. Filippov, V. Hrytsku, and Y. Demkiv. 2022. "Competitiveness of the Higher Education in the Context of Ensuring Sustainable Development of the State." *Management Theory and Studies for Rural Business and Infrastructure Development* 44 (3): 280–7. <https://doi.org/10.15544/mts.2022.29>.
- Shypulina, Y. S., O. F. Gryshchenko, and V. O. Bilenko. 2016. "The International and National University Rankings as an Constituent of University's Competitiveness." *Маркетинг і менеджмент інновацій* 1: 183–95.
- Stonkiene, M., R. Matkeviciene, and E. Vainiene. 2016. "Evaluation of the National Higher Education System's Competitiveness: Theoretical Model." *Competitiveness Review*.
- Suwarno, Kamaludin, S. Widodo, and R. S. Hayu. 2021. "The Role of Performance and new Services Development on Sustainable Competitive Advantage in Indonesian Private Universities." *International Journal of EBusiness and EGovernment Studies* 13 (1): 117–41.
- Tan, C. L., Y. N. Goh, and H. S. Chan. 2015. "The Determinants of Competitiveness in Quality: A Study among the Malaysian Private Higher Education Institutions." *Problems and Perspectives in Management* 13 (2): 371–9.
- Tan, C. L., S. F. Yeo, Y. N. Goh, and H. S. Chan. 2017. "An Examination of the Factors Influencing the Green Initiative and Competitiveness of Private Higher Education Institutions in Malaysia." *Jurnal Pengurusan* 51.
- Tasopoulou, K., and G. Tsiotras. 2017. "Benchmarking Towards Excellence in Higher Education." *Benchmarking: An International Journal*.
- Teixeira, P. N., V. Rocha, R. Biscaia, and M. F. Cardoso. 2012. "Competition and Diversity in Higher Education: An Empirical Approach to Specialization Patterns of Portuguese Institutions." *Higher Education* 63 (3): 337–52. <https://doi.org/10.1007/s10734-011-9444-9>.
- Teixeira, P., V. Rocha, R. Biscaia, and M. F. Cardoso. 2013. "Competition and Diversification in Public and Private Higher Education." *Applied Economics* 45 (35): 4949–58. <https://doi.org/10.1080/00036846.2013.808310>.
- Teixeira, P. N., P. L. Silva, R. Biscaia, and C. Sá. 2022. "Competition and Diversification in Higher Education: Analysing Impacts on Access and Equity in the Case of Portugal." *European Journal of Education* 57 (2): 235–54. <https://doi.org/10.1111/ejed.12501>.
- Tranfield, D., D. Denyer, and P. Smart. 2003. "Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review." *British Journal of Management* 14 (3): 207–22. <https://doi.org/10.1111/1467-8551.00375>.
- Tsarenko, I. 2016. "The Competitiveness of Higher Education of Ukraine According to the International Dimension." *Baltic Journal of Economic Studies* 2 (1): 107–13. <https://doi.org/10.30525/2256-0742/2016-2-1-107-113>.
- Tuma, T. T., J. D. Adams, B. C. Hultquist, and E. L. Dolan. 2021. "The Dark Side of Development: A Systems Characterization of the Negative Mentoring Experiences of Doctoral Students." *CBE—Life Sciences Education* 20 (2): ar16.
- Tusyanah, T., A. Fadlilah, and M. Khafid. 2020. "Analyzing Students' Loyalty through Service Quality, Commitment, and Reputation." *International Journal of Business & Management Science* 10 (2): 147–67.
- Universities UK. 2021. Accessed August 1, 2021. <https://www.universitiesuk.ac.uk/>.
- Van Dalen, H. P. 2021. "How the Publish-or-Perish Principle Divides a Science: The Case of Economists." *Scientometrics* 126 (2): 1675–94. <https://doi.org/10.1007/s11192-020-03786-x>.
- Vasiliev, A. 2021. "Competitiveness and Academic Excellence with Emerging Technologies: Methods for Assessing the Quality of University Education." *International Journal of Instruction* 14 (4): 1013–32. <https://doi.org/10.29333/iji.2021.14458a>.
- Vasiliev, A. 2022. "Designing the University Competitiveness Management System: Functions, Levels, Objects." *International Journal of Instruction* 15 (4): 1053–70. <https://doi.org/10.29333/iji.2022.15456a>.
- Wilkins, S. 2019. "The Positioning and Competitive Strategies of Higher Education Institutions in the United Arab Emirates." *International Journal of Educational Management* 34 (1): 139–53.
- Yang, Y., M. Fabus, K.-H. Bae, and M. Zhang. 2020. "A Diamond Model Based Analysis for Improving the Sustainable Competitiveness in Educational Exports by Chinese Colleges and Universities." *Sustainable Entrepreneurship*, 7.

- Yu, Y., and B. Huo. 2019. "The Impact of Environmental Orientation on Supplier Green Management and Financial Performance: The Moderating Role of Relational Capital." *Journal of Cleaner Production* 211: 628–39. <https://doi.org/10.1016/j.jclepro.2018.11.198>.
- Zayarnaya, I. A. 2019. "Modern Approaches to Competitive Development of Universities." *Nuances: Estudos Sobre Educação* 30(1).
- Zhang, K. Y., and B. K. Goh. 2022. Collaborate or compete?, *THE Campus Learn, Share, Connect*. Accessed 11 September 2023. <https://www.timeshighereducation.com/campus/collaborate-or-compete>.
- Zhang, Q., N. G. MacKenzie, D. Jones-Evans, and R. Huggins. 2016. "Leveraging knowledge as a competitive asset? The intensity, performance and structure of universities' entrepreneurial knowledge exchange activities at a regional level." *Small Business Economics* 47 (3): 657–75.