

# Internal and External Environmental Forces in Higher Educational Institutions (HEIS) for Sustainable Competitive Advantage: A Systematic Review of Literature

Daphne Munsaka Phiri<sup>1</sup>, Charles Muwe Mungule<sup>2</sup>, Jackson Phiri<sup>3</sup>

<sup>1</sup>PhD Candidate, Graduate School of Business, University of Zambia

<sup>2</sup>Lecturer, Graduate School of Business, University of Zambia

<sup>3</sup>Associate Professor, Department of Computer Science, University of Zambia

DOI: <https://dx.doi.org/10.47772/IJRISS.2024.8110036>

Received: 15 October 2024; Accepted: 21 October 2024; Published: 29 November 2024

## ABSTRACT

Higher education institutions (HEIs) play a very important role in the economy of any country because they shape future leaders. Like any industry, the higher education industry is faced with increased competition. Therefore, achieving competitive advantage and sustaining it has become more and more important for HEIs. A number of theoretical views have been advanced on how firms, including HEIs can achieve a sustainable competitive advantage. This systematic review of literature reviewed 60 articles extracted from Scopus, WoS, Research Gate and Google Scholar with the aim to review key theories, including, porter's five forces, resource-based view (RBV), dynamic capabilities view (DCV), and the relational view (RV) and their application to the higher education sector. More specifically, the review sought to address the internal and industry forces in the environment of higher education institutions that influence their competitive advantages. This systematic review highlights five major internal resources, namely, physical resources, human resources, institutional reputation, rankings and collaborations. The study also highlights three significant indus forces from porter's five forces, that is, the bargaining power of suppliers, the threat of substitute goods and rivalry among competing HEIs. The literature reviewed strongly indicates that higher education institutions need to enhance their performance in response to the evolving educational environment by developing adaptive strategies aligned with academic excellence.

**Keywords:** Higher Education Institutions, Sustainable Competitive Advantage, Resource Based View, Dynamic Capabilities, Relational View, Porter's Five Forces

## INTRODUCTION

The pursuit of sustainable competitive advantage for Higher Education Institutions (HEIs) has gained increased importance due to the rapidly evolving landscape of the higher education sector. Increased globalization as well as improvements in technology have led to the development of new training technologies and changes in student demographics have increased the complexity of the competitive business environment (*Strategy Education Strategy*, 2021). In addition, political/economic changes have led to changes in the regulatory framework governing the higher education sector, presenting both challenges and opportunities. Furthermore, competition among higher education institutions has transcended beyond national boundaries, compelling HEIs to adopt strategies to ensure their survival. Therefore, striving towards sustainable competitive advantage is strategically imperative. The concept of sustainable competitive advantage has been explored extensively in the realm of strategic management. Scholars, such as Porter & Canada, (1985) and Barney, (1991) have developed frameworks, such as the generic strategies and Resource Based View, which can be adopted by institutions to achieve sustainable competitive advantage. HEIs are compelled to leverage

their distinctive resources and capabilities in order to strengthen their competitive position in the higher education market place.

The increase in the number of higher educational institutions (HEIs), has intensified competition among them, both in domestic and international markets. Therefore, attaining competitive advantage in HEIs may be achieved through various modes, using both tangible and intangible resources (Bhutto, 2018). The increase in competition has also increased the costs of providing education because these institutions have to use more innovative delivery methodologies in order to attract new learners. According to (Wang, 2014), competitive advantage is obtained when an organization develops or acquires a set of attributes that allow it to outperform its competitors. However, competitive advantage is temporary, therefore, the, strive should be towards gaining and sustaining competitive advantage. Competitive advantage is sustainable when rival firms give up plans to imitate the resources of competitors or when barriers to imitation are high (Brahma & Chakraborty, 2011; Barney et al., 2001). The higher education sector plays a very important role in the economy of any country. Education is seen as a public good, that produces an educated workforce, and this in turn, translates into higher national output (Thomas & Peters, 2012). Therefore, educational institutions are better placed to initiate technological changes and a source of innovative minds. According to (Sikwibele, (2007), the ability for countries to compete in the global economy and respond to current and emerging challenges depends on their education systems' ability to impart foundation skills. According to (Lehmann et al., 2020), universities are at the center of knowledge creation and exploitation, therefore they are key players in promoting economic growth and competitiveness. The higher education sector in Zambia has become increasingly competitive in the last ten years, with more than 50 universities (HEA, 2022).

This systematic review examines and synthesizes theoretical literature on competitive advantage to develop a model of sustainable competitive advantage for HEIs. The paper draws on the concepts from the resource-based view, porter's five forces, dynamic capabilities view, and the relational view to investigate the relationship between the internal and external environmental forces with competitive advantage of HEIs. The paper examines existing research from 2000 to 2024, guided by the following research questions.

**RQ1:** What is competitive advantage?

**RQ2:** What are the factors in the external environment of HEIs that influence strategy development for competitive advantage?

**RQ3:** What are the key factors in the internal environment of HEIs required for competitive advantage?

This review of theoretical literature proposes a conceptual framework anchored on four models, that is, the resource-based view, dynamic capabilities view, relational view, and porter's five forces. The framework provides a foundation for testing the proposed prepositions.

The paper is structured as follows: the first section introduces the literature review. The next section outlines the research methodology adopted for this systematic review, followed by a descriptive analysis of prior research which details the theoretical foundations and methodologies used. The final section presents the discussion of the findings, followed by the conclusion.

## RESEARCH METHODOLOGY

This review adopted the PRISMA protocol recommended for systematic review. According to (Connolly et al., (2022), systematic literature review is comprehensive, rigorous and methodical. It involves analysis of numerous documents in a systematic manner. Systematic review of literature differs from the traditional review in that the former seeks to answer questions by evaluating evidence from all published research that relates within specified boundaries (Ankrah & AL-Tabbaa, 2015). The search for literature was guided by three research questions. The search strategy considered journal articles published in electronic databases. The following databases were search for titles of potentially relevant literature: Elsevier (Science Direct), Web of

Science, Google Scholar, Scopus and Research Gate. These databases were selected because of their wide coverage on the subject matter and the quality of articles. The databases were searched or initial relevant literature using combination of terms, including; theories of competitive advantage, competitive advantage and higher education institutions, or university, porter’s fives forces, resource based view, dynamic capabilities view, relational view, alliance or collaborations, this procedure yielded more than 2800 results. The selection criteria followed; published journal articles and conference papers between January 2000 and September 2024, those that were in English language and those articles referring to higher education or university and resource based view, relational view, porter’s five forces. This narrowed the results.

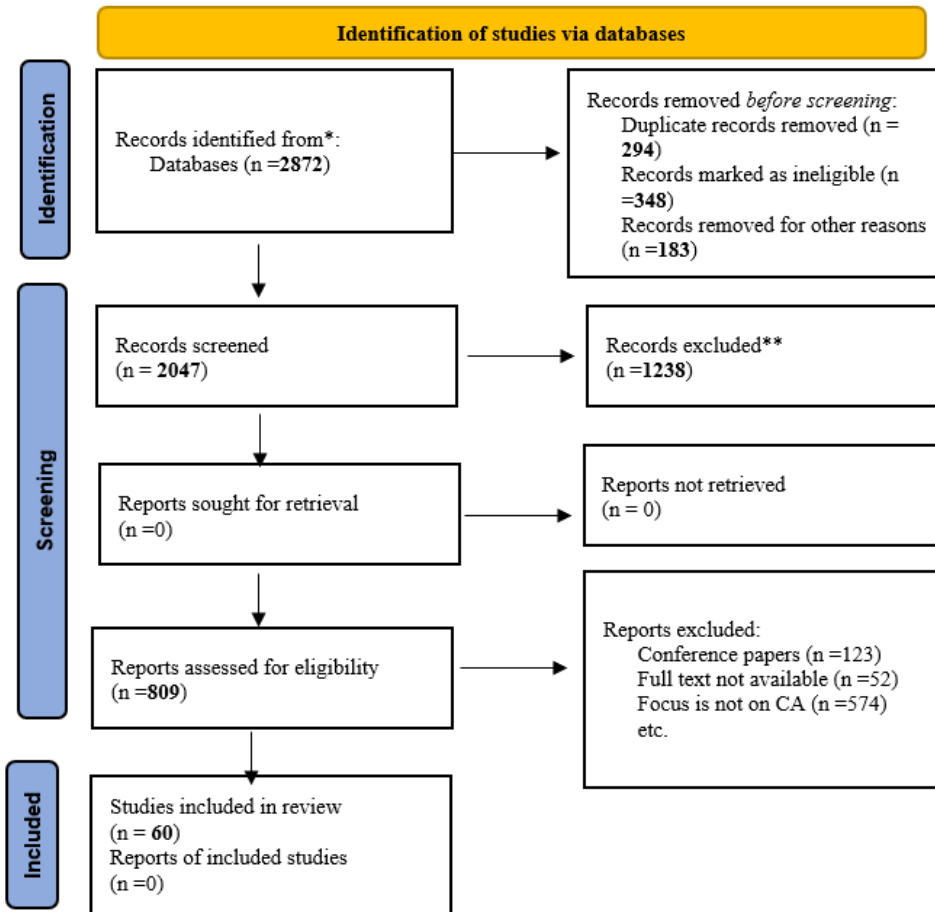


Figure 1: PRISMA flow diagram (Haddaway N. R et al., 2022)

Table 1: Journal Articles Reviewed

S/N	Author	Title	Objective	Findings
1.	Mainardes, Emerson Wagner et al., (2011)	Creating a competitive advantage in Higher Education Institutions: proposal and test of a conceptual model	to propose and test a conceptual model that explains the process of identification of competitive advantages in a Higher Education Institution (HEI).	The findings show evidence that, to be competitive, a HEI should have a stronger connection between resources, territory, and stakeholders.
2.	Ilieva, Janet et al., (2019)	The Shape of Global Higher Education: International Comparisons With Europe	to update the assessment of national policies relating to international engagement in higher education, for European countries	All countries under study have dedicated bodies which oversee executing the implementation of the respective strategies,

3.	M.Miandy Munusamy and Azirah Hashim (2019)	Internationalisation of Higher Education in Malaysia: Insights From Higher Education Administrators	to evaluate the rationale for international cooperation in the Malaysian higher education internationalisation agenda.	The findings indicate that the Malaysian higher education system focuses on the economic and socio-cultural rationale moderately supported by the political and academic rationale. The study also identifies that international networking through international cooperation is crucial in strengthening Malaysian higher education internationalisation.
4.	Amado and Fernando (2022) (2014)	Reputation in Higher Education: A Systematic Review	to identify and characterize how reputation has been studied in this sector	Reputation has been conceptualized based on the perception of stakeholders. These include, university quality public relations, marketing communication, crisis and/or risk management, and corporate branding
5.	Bruijl G. (2018)	The Relevance of Porter's Five Forces in Today's Innovative And Changing Business Environment	To assess the relevance of porter's five forces as well as explore alternative frameworks.	The article shows that porter's five forces has three limitations; too analytical, impractical & rigid. Alternative models include, the RBV, Delta Model and Blue Ocean Strategy, which can be used together with porter's five forces.
6.	Ma, Jie and Montgomery, Catherine (2019)	Constructing Sustainable International Partnerships in Higher Education: Linking the Strategic and Contingent Through Interpersonal Relationships in the United Kingdom and China	to foreground the role of individuals in developing and sustaining international partnerships amid an increasingly strategic landscape of higher education internationalization.	Findings suggest that interpersonal relationships provide a strong basis for sustainable partnerships and it is through contingent networking between individual academics that interpersonal relationships are developed. However, it is through strategic planning by senior academics that interpersonal relationships are embedded in the institution.
7.	ENGİNOĞLU, Dr. Didem et al., (2016)	A literature review on core competencies	to outline the major approaches accumulated in the core competence literature	Research shows that core competence is at the heart of all competitiveness. Therefore, we believe that firms, managers, and researchers should have a more clear understanding of a construct that will benefit them in highly competitive business environments.

8.	Amit, Raphael and Shoemaker (1993)	Strategic Assets and Organizational Rent	To determine the linkages between the industry analysis framework, the resource-based view of the firm, behavioral decision biases and organizational implementation issues.	The findings connect the concept of Strategic Industry Factors at the market level with the notion of Strategic Assets at the firm level.
9.	Bikse, Veronika et al., (2013)	Competitiveness and quality of higher education: Graduates' evaluation	to find the competitiveness of Latvian university graduates in Latvia and the European Union labour market concerning aspects of entrepreneurship education	Results indicate that, in general, the graduates consider themselves competitive in the Latvian labour market. The graduates have positive opinions concerning the quality of theoretical knowledge as well as the abilities to present information and to evaluate, analyse and systematise it.
10.	Ambrósio, Susana et al., (2017)	Higher education institutions and international students' hindrances: A case of students from the African Portuguese-speaking countries at two European Portuguese universities	to comprehend if the support given by higher education institution (HEI) to international students coming from the Portuguese- Speaking African Countries meets their academic and social hindrances.	findings indicate a positive institutional support.
11.	Astuty, Eriana et al., (2019)	Publication strengthening as the foundation in entering world quality higher education	to identify the capability needed by universities to attain World Class Quality through aspects of the research situation, situations of academic freedom and academic excellence.	The results showed that 25% of DIKTI ratings in Indonesian universities were strongly influenced by publication performance.
12.	Lomer, Sylvie et al., (2018)	Constructing a national higher education brand for the UK: positional competition and promised capitals	to examine national branding of UK higher education, a strategic intent and action to collectively brand UK higher education with the aim to attract prospective international students	The conceptual framework proposed here seeks to connect national higher education branding to the concept of the competitive state, branded as a nation and committed to the knowledge economy.
13.	Armstrong, Craig E. et al., (2011)	Conversations in Competitive Advantage: A Bibliographic Analysis of the Major Research Streams and Their Influence on the Field	the purpose of this working paper is to examine the major research conversations in the context.	results indicate that one of the challenges the field is facing may be that we are not having a small set of central, directed conversations, but a large set of numerous, somewhat fractured, conversations.



14.	Labas, Istvan et al., (2018)	Competitiveness - higher education	to examine the performance of higher education: to what extent it fulfils the strategy for smart, sustainable and inclusive growth (Europe 2020)	The findings show that the competitiveness of nations, necessary for Europe 2020 cannot be separated from the competitiveness of HEIs.
15.	Lane, Jason E. (2012)	Higher education and economic competitiveness	To examine the factors driving the World Economic Forum's Global Competitiveness Index to illustrate how higher education has come to be viewed as a driver of economic growth.	It lays out the growing global interest and import of economic competitiveness and the ways in which governments are seeking to harness the power of higher education to support their own competitiveness.
16.	Supe, Liana et al., (2018)	Factors affecting the competitiveness of a higher education institution: Systematic literature overview	To identify the factors, which affect the competitiveness of a higher education institution in the conditions of globalization.	the competitiveness of higher education institution is influenced by the internal factors that are formed by the internal environment of the higher education institution and external factors that are formed by the external micro-environment and macro-environment influenced by the state policy;
17.	Rosdi, Mohd and Asma, Siti (2017)	Resources, capabilities, strategies and competitive advantage of Research University in Malaysia	To explore the competitive advantages of research university (RU) with a specific focus in the Malaysian context	The findings identified the elements of competitive advantage such as quality of education, research, facilities and service (resource); reputation and attractiveness (capabilities) as well as ranking position and being different (strategies).
18.	Dyer, Jeffrey H. and Singh Harbir (1993)	The Relational View: Cooperative Strategy and Sources of Interorganizational Competitive Advantage	We examine each of these potential sources of rent in detail, identifying key subprocesses, and also discuss the isolating mechanisms that serve to preserve relational rents.	suggests that a firm's critical resources may span firm boundaries and may be embedded in interfirm resources and routines.
19.	Wang, Hui-Ling et al., (2014)	Theories for competitive advantage	to provide an overview of the key theories in this space	findings show that the Market-Based View (MBV) and the Resource-Based View (RBV). Then core competencies. Then the knowledge-based view and capability-based view of strategy. more recently, the relational view of strategy An

				even more recent proposal proposes a notion of transient advantage
20.	Kuria, Thuo J et al., (2014)	Theoretical Underpinnings of Dynamic Capabilities	to review the theoretical underpinnings of dynamic capabilities	It finds that dynamic capabilities are an extension of the Resource Based View. The paper identifies some conceptual gaps emanating from lack of clear definition. It concludes that a multi theory study and uncover a single conceptual definition.
21.	Šula, Tomáš et al., (2015)	Innovative Marketing as a Tool for Building a Positive Image of an Institution of Higher Education and Increasing the Competitiveness of its Graduates	to analyse the functional connection between the real life and a university study program through projects implemented at a selected academic workplace,	Student projects, involves application of the obtained theoretical knowledge in real life. They also enhance personal development, teamwork, own portfolio and other competencies that provide them with a strategic advantage when looking for their future job.
22.	Wong, Jeng-Min et al., (2011)	A Relational View of Resources-based Theory: The case of Internationalization of Li & Fung Group	to examine the relational view of resources-based theory to examine how Li & Fung Group can cultivate its core competencies dynamically in the face of environmental changes	the findings verify the strategic implications of the relational view of resources-based theory and provides valuable experience for firms to deliberate on their internationalization strategies.
23.	Williams, Scott David (2014)	A Strategic Resource-Based View of Higher Education Institutions' Resources	to review literature on measures of institutional resources	Findings show that some resource variables were qualitative, but the majority captured size or quantity of resources.
24.	Raible, Max et al., (2013)	Industrial Organization theory and its contribution to decision-making in purchasing	to investigate how Industrial Organization Theory and in particular the Structure-Conduct-Performance paradigm, can contribute to decision-making in the purchasing year cycle.	The theory indicates the influence of competitive forces on the industry, as well as, how the profitability is determined by them. These opportunities and threats in the external environment of a firm are important factors, influencing strategic management in general and in particular Supply Chain Management.
25.	Shahsavar, Tina et al., (2017)	Student satisfaction and loyalty in Denmark: Application of EPSI methodology	to measure the strength of determinants of students' satisfaction and the importance of	findings confirm that the EPSI framework is applicable on student satisfaction and loyalty among Danish universities. all

			antecedents in students' satisfaction and loyalty in Denmark.	the relationships among variables of the research model are significant except the relationship between quality of software and students' loyalty. Results further verify the university image and student satisfaction are the antecedents of student loyalty with a significant direct effect, while perceived value, quality of hardware, quality of software, expectations, and university image are antecedents of student satisfaction.
26.	Pringle, James and Huiseman (2016)	CSSHE SCÉES Understanding Universities in Ontario, Canada: An Industry Analysis Using Porter's Five Forces Framework	to analyse the application of porter's five forces on Ontario University	the assessment revealed that competition in Ontario's higher education industry (university sector) is currently mixed. The findings suggest that policy-makers, will need to consider more seriously the impact of technology and globalization when seeking a competitive position.
27.	Aydin, Oya Tamtekin (2017)	Assessing the environmental conditions of higher education: in a theoretical approach using porter's five forces model	to apply Porter's Five Forces model to analyze the external environmental conditions of Turkish higher education	the study indicates that Turkish higher education operates in a unique context where the idea of industry profitability and rivalry is contentious. This is in contrast to Western countries where the higher education sector is more often analyzed from a business perspective.
28.	Coenen, Frans and David (2015)	Alumni Networks—An Untapped Potential to Gain and Retain Highly-Skilled Workers?	to investigate the role of higher education alumni networks in the retention and (re)-attraction of highly skilled workers to their university regions, particularly in non-core regions.	the study finds that alumni networks in the analyzed cases are primarily used as communication instruments for maintaining contact with graduates
29.	Haan, Haijing Helen de (2015)	Competitive Advantage, What Does it Really Mean in the Context of Public Higher Education Institutions?	to critically investigate the concept of "competitive advantage" as applied in the public higher education institutions (PHEIs) sector.	13 elements were identified that contribute to the construction of competitive advantages sought by PHEIs.
30.	Mahat, Marian and	Strategic Positioning in Higher Education:	to analyze higher education, specifically	the study finds that medical education is identified as a



	Goedegebuure, Leo (2016)	Reshaping Perspectives	medical education, through a business-oriented framework by applying Porter's five forces model.	distinct niche within higher education, facing specific competitive pressures, such as the demand for medical professionals, regulatory influences, and the bargaining power of students and faculty
31.	Mathooko, and Ogutu (2015)	Porter's five competitive forces framework and other factors that influence the choice of response strategies adopted by public universities in Kenya	to determine the extent to which Porter's Five Competitive Forces framework, alongside other factors, influences the choice of response strategies adopted by public universities in Kenya.	The Porter's Five Competitive Forces (PFCF) framework significantly influenced the choice of response strategies by public universities, with the most significant force being the threat of new entrants.
32.	Sigalas, Christos (2015)	Competitive advantage: the known unknown concept	to empirically investigate managers' awareness of the concept of competitive advantage,	The analysis revealed that many senior managers confuse the concept of competitive advantage with the concept of sources of competitive advantage, particularly in relation to resource-based theory.
33.	Lynch, Richard and Baines Paul (2004)	Strategy development in UK higher education: Towards resource-based competitive advantages	to explore potential coping strategies for Britain's higher education institutions (HEIs) facing unprecedented competitive pressures.	The findings suggests that a resource-based perspective can provide valuable insights for strategic development in UK universities and that these principles are applicable to HEIs in other regions.
34.	Furrer, Olivier et al., (2008)	Resource configurations, generic strategies, and firm performance: Exploring the parallels between resource-based and competitive strategy theories in a new industry	to develop linkages between firm-level resources, Porter's competitive strategy space, and firm performance within the context of the marketing technology industry.	Each resource configuration corresponds to a unique optimal region in the competitive strategy space, implying that strategic choices should be aligned with firm resources.
35.	Fehrenbach and Huiseman 2024	A Systematic Literature Review of Transnational Alliances in Higher Education: The Gaps in Strategic Perspectives	to considering the "why", the "how" and the benefits derived from pursuing transnational alliances.	discovered that the insights gained from analysing transnational strategic partnerships are very limited
36.	Mehling, Sebastian (2019)	Cross-sector collaboration in higher education institutions (HEIs): A critical analysis of an urban sustainability development program	To analyze how individuals engaged in a cross-sector partnership	The findings indicate that rather than entering a partnership with predefined identities, values and sectoral or professional preferences, individuals engage in a narrative struggle about the organizational character of their

				partnership
37.	Huang, and Cheng (2012)	Strategic management for competitive advantage: A case study of higher technical and vocational education in Taiwan	To determine the sources of competitive advantage for HTVE in Taiwan	the results show that integration of industrial organisation and resource-based view theories provides a useful framework in which to comprehensively and systematically analyse an industry sector in relation to competitive advantage. This study also highlights that institutional performance depends on the match between the state of the environment surrounding the higher technical and vocational education institutions and their use of resources.
38.	Patnaik, Swetketu et al., (2022)	Extending the resource-based view through the lens of the institution-based view: A longitudinal case study of an Indian higher educational institution	to investigate the complex relationship between organizational resources and institutional changes and the role played by dynamic capabilities in mitigating the impact of institutional changes.	The findings of the study provide critical theoretical enrichment to the resource-based and institution-based explanations of organizational growth and offer important practical implications.
39.	Sanders, Justin S. and Wong Tina (2021)	International partner selection among higher education institutions in Hong Kong, Singapore and Japan: a resource-based view	to explore international partner selection among higher education institutions in Hong Kong, Singapore and Japan	the findings identified twelve attributes that influenced international partner selection for higher education institutions in these contexts. Eleven fit within resource-based theory's criteria areas of technical capabilities, managerial capabilities and intangible resources
40.	Jeketule, Jacob Soko (2018)	Intangible Assets for Sustainable Competitive Advantage in Institutes of Higher Learning	to find out what kind of resources and capabilities thriving institutes of higher learning in Kenya possess and build to make them stay afloat amidst stiff competition.	findings indicate that reputation, organisational leadership, and collaboration are vital for institutes of higher learning to thrive The study further proposes a conceptual framework that may lead institutions of higher learning to gain and sustain competitive advantage.
41.	Aydin (2013)	Location as a Competitive Advantage to Attract Students: An Empirical Study from a Turkish Foundation University	To assess if location is a source of competitive advantage for HEIs	The results of study indicate the location affects the students' university choice decision and so it is a kind of sustainable

				competitive advantage for this sample university.
42.	Sánchez-Chaparro, Teresa et al., (2020)	Competitive implications of quality assurance processes in higher education. The case of higher education in engineering in France	To analyse the websites of higher education institutions in engineering in France.	findings show a clear association has been found between the ranking position of an institution and its communication behaviour. The results have been interpreted in the light of Neoinstitutional Theory and Porter's generic competitive strategies
43.	Yaping, Xiao et al., (2023)	University brand: A systematic literature review	to identify, evaluate, and analyze university brand.	
44.	Miotto, Giorgia et al., (2020)	Reputation and legitimacy: Key factors for Higher Education Institutions' sustained competitive advantage	to measure how reputation, by way of its influence on legitimacy, can create a sustained competitive advantage for public universities.	a university's reputation has a significant and positive effect on its legitimacy.
45.	Jowi, James Otieno (2024)	Recent developments in higher education in Africa: partnerships for knowledge transformations	to explore some of the recent developments and transformations in Africa's higher education	highlights the impacts of academic partnerships on these transformations, with a focus on research, postgraduate training, mobility and some new intra-African initiatives
46.	Ankrah, S N. and Al-Tabbaa, Omar (2015)	Universities-Industry Collaboration: A Systematic Review	To review the literature on university-industry collaboration	Identified 5 key aspects which were integrated into a framework
47.	Elmuti, Dean et al., (2005)	An overview of strategic alliances between universities and corporations	to explore the essence of strategic alliances and why they have become such a growing area of research in business in recent years.	Highlights the major advantages for the academic community - research funding and practical learning opportunities for students - and for industry - lower research and development costs and technology transfer opportunities that affect competitiveness
48.	Hung, Nguyen Tan (2021)	Higher education in business: a model for international students' choice	to investigate the factors and processes leading to the choice of international students studying in Taiwan.	indicated that students' motivation and career planning were significantly correlated, whereas both factors directly affected the decision-making process. On another note, the students' decision-making process remained a mediator between motivation, career planning and students' choice
49.	Mazzarol, Tim	Sustainable competitive	to outline a model of the	The study outlines a model of

	et al., (1999)	advantage for educational institutions: A suggested model	factors that are critical to the establishment and maintenance of sustainable competitive advantage for education services enterprises in international markets	the factors that are critical to the establishment and maintenance of sustainable competitive advantage for education services enterprises in international markets
50.	Teece, David J. (2023)	The Evolution of the Dynamic Capabilities Framework	to review the development and future potential of the dynamic capabilities framework	The dynamic capabilities framework has been a productive area of research, and its relevance
51.	Lysokon, Illia (2024)	Educational Management In Higher Education Institutions: Strategies For Quality And Competitiveness	to consolidate theoretical and scientific-practical approaches to form effective education management strategies in the context of modern realities.	The findings show the significance of developing cross-cultural competence, leadership, and digital literacy in future professionals. Additionally, it establishes a correlation between the Human Development Index, as a measure of education quality, and gross national product.
52.	Barney, Jay B. et al., (2021)	Resource-Based Theory and the Value Creation Framework	to provide clarity to resource-based theory (RBT) by examining it within the Brandenburger and Stuart value creation framework.	reviewing the RBT through the value creation framework, the article refines and clarifies important elements, such as: definition of dependent variables
53.	Waham, Jihad Jaafar et al., (2023)	Global Trends in Higher Education: A Comparative Analysis of Enrollment and Quality Assurance Mechanisms conditions of the Creative Commons Attribution	To explore the challenges and opportunities associated with international collaborations	The challenges include cultural differences, academic quality and standards, funding constraints and logistical complexities. Opportunities include; expanding access, enhancing research opportunities, utilizing advanced ICTs and exploring innovative funding models
54.	Tuan, Kim Manh et al., (2022)	Comprehensive Review Of The Sources Of Competitive Advantages	to choose an appropriate definition of competitive advantage.	The finding is that there are three views over competitive advantages: Resource-based View, Competence-based View, Relationship and networks-based View.
55.	Abdurachman, Edi et al., (2023)	Improving Competitive Advantages of Higher Education Institutions through IT Governance, IT Excellence, and IT Innovation: A Case Study in School of Informatics Management &	To develop IT innovation theories	The results show that the alignment of IT innovation and IT excellence is an important platform for competitive advantage

		Computing in Indonesia		
56.	Vu, Hieu Minh (2020)	A review of dynamic capabilities, innovation capabilities, entrepreneurial capabilities and their consequences	to highlight different understandings of the dynamic capabilities, innovation capabilities, entrepreneurial capabilities concepts	The paper proposes a conceptual model which provides direction for researchers to empirically establish the connections between dynamic capabilities, innovation capabilities, entrepreneurial capabilities and financial and strategic performance.
57.	Goyal, Anchit (2021)	A Critical Analysis of Porter's 5 Forces Model of Competitive Advantage	To critically analyses the Porter's 5 forces model while also comparing it with various other frameworks that attempt to explain Sustainable Competitive Advantage.	The paper suggestsvother frameworks that can help overcome the limitations of porter’s five forces
58.	Ngaruko, Deus D (2014)	Building Competitive Advantage in Academic Programmes in Open and Distance Learning (ODL) Institutions: Case of The Open University of Tanzania	To highlight where the institution is doing well and needs to guard its market competitive advantage	The findings suggest that greatest competitive advantage for ODL-HLIs such as OUT’s is hidden in its postgraduate programmes.
59.	Semali, Ladislaus M. (2013)	Multi-Institutional Partnerships for Higher Education in Africa: A Case Study of Assumptions of International Academic Collaboration	To examine the expectations, dynamics, and intricacies of academic partnerships and the reality of African academic institutions	The analysis revealed perplexing assumptions that undergird the expectations of collaboration between U.S. and African partners as well as cross-cultural dynamics that govern, sustain, and sometimes frustrate such engagements
60.	Dyakon, Antonina (2016)	Competitive advantages of the national higher education system in the context of globalization	To assess the essence and types of competitive advantages of the national higher education system	The implementation of measures of competitiveness should be based should be based on strengthening its competitive advantages a complete, diverse and powerful system.

## RESULTS

### Descriptive Analysis

The systematic review considered 60 studies, as presented in Table 1 above, published mostly in Education, Management and Strategic Management Journals. This review of literature from 2000 to 2024 was conducted to assess the sources of competitive advantage using an integrated framework of four theories, namely the resource-based view, dynamic capabilities view, relational view, and porter’s five forces by Michael Porter. The review showed that he RBV was the most popular theory explaining the source of competitive advantage of HEIs. The next popular theory was porter’s five forces, followed by the relational view. The Dynamic



capabilities theory was mostly discussed under the RBV, except in a few studies where it was discussed in isolation.

### **RQ1-What is Competitive Advantage?**

The concept of competitive advantage of firms has its history in strategic management literature (Asma & Rosdi, 2017). Ansoff (1965) first defined competitive advantage as the properties of individual products/markets which will give the firm a strong competitive position (Asma & Rosdi, 2017). Since then, more definitions have been advanced by several authors, such as, Armstrong et al., (2011); Barney (1991); Porter (1985), to mention only a few. The concept of competitive advantage gained popularity because of the work of Michael Porter, a Harvard Professor, who has written so much on the subject matter. Porter, (2008), states that competitive advantage is the firm's ability to create superior value for its buyers by offering lower prices than competitors for equivalent service offer or by providing unique services that a buyer is willing to pay at a premium price. Sigalas and Pekka- Economou define competitive advantage as "the above industry average manifested exploitation of market opportunities and neutralization of competitive threats" (Sigalas & Pekka-economou, 2018). Furthermore, the concept of competitive advantage has broadened to include other aspects, such as, services, value creation as well as overall firm performance (Abdurachman et al., 2023; Tuan et al., 2022; Haan, 2015;Loh, 2011).The broadened view of competitive advantage has made it to be applicable to the higher education sector. According to Haan, (2015), HEIs have always had in their genes to be competitive, for example, when they try to attain academic excellence and obtain international reputation.

### **RQ2-What are the factors in the external environment of HEIs that influence competitive advantage?**

This paper will assess the external environmental forces of the higher education industry through the lenses of Porter's Five Forces. According to Išoraitė, (2018), Porter's Five Forces Model provides an opportunity for firms to examine the continuing competitive advantage in a rapidly changing environment. Jones and (Mugo, 2020), supported the notion that as the power of the five forces increases, it tends to limit the ability of firms to boost profitability.

### **Porter's Five Forces Theory**

Porter (1985) developed this model to enable organisations assess their competitive environment and develop appropriate strategies. Each of the five forces, also referred to industry forces is expected to influence various measures of competitive advantage (Baird et al., 2024). Goyal, (2021) asserts that universities should pay close attention to the industry analysis (rivalry, bargaining power of buyers) when developing academic programs. Dälken, (2014) claims that Porter's model sets the standard for industry analysis and can complement strategic planning. Porter's five forces analysis is usually used as a tool to assess the industry's level of profitability by analyzing the relative effect of each force. The stronger the force, the less profitable the industry will be. These forces, however, have varying degree of effect on industry competition and profitability. For example, some industries may have low threat from potential entrants, but high bargaining power of buyers. For other industries, threat of substitute products may be very low, but they may face strong competitive rivalry. Therefore, it is important for firms to carry out an analysis of the competitive forces to determine which forces are strong. It is also important that such an analysis is conducted regularly because the strength of these forces tends to change with time depending on environmental dynamics. Thus, a firm's competitive strategy should be aligned with the relative effect of the competitive forces.

Although many firms popularly use Porter's five forces framework, it has some limitations. One of the limitations of the model is that it assumes static environments (Goyal, 2021). Industry structure is not static, it is always changing, changing customer needs and preferences, improvements in technology, changes in government policies- such that, any analysis done at any given point would be rendered obsolete as soon as there is change in any one of the factors Dälken, (2014). The model also assumes that industry consists of buyers, sellers and competitors that do not interact with one another (Mugo, 2020). It may also be difficult to

apply the framework to large firms which operate in multiple industries. It becomes difficult to define the industry in which they operate (Mahat & Goedegebuure, 2016).

### **Porter's Five Forces Model Application to the Higher Education Industry**

Using the five forces model, buyers can be thought of as students, suppliers as lecturers and professors, rivalry as competing universities within the industry, threat of entry as potential new training institutions and threat of substitutes as online and professional programs. The five forces are discussed in detail as follows:

- **Threat of new entrants**

The threat of new entrants in an industry leads to intensified competition that can affect an industry's profitability. According to Porter (2008), new entrants to an industry result in increased pressure on prices, costs, and the rate of investments. Entry barriers determine the threat of new entrants. A low barrier to entry can intensify competition, and a high barrier to entry can lead to fewer competitors (Aydin, 2017).

If existing institutions are enjoying economies of scale, then the barrier to entry is high or the threat of new entrants will decrease. Capital requirements for entering an industry may act as a barrier if they are too high. In some cases, the capital required for investing in a traditional university are very high, making it very difficult for new universities to enter the industry. Another factor that acts as a barrier is the reaction from existing universities. The reaction could be in form of adjusting fees down wards or adding new features to their programs at no additional costs. The other barrier is buyer resistance, which may be because of high switching costs or simply not accepting the new institutions. Students may make comparisons between existing universities and new ones in terms of quality (Lysokon et al., 2024; Aydin, 2017). Additionally, another barrier to entry according to (Pringle & Huisman, 2016) is switching costs. Switching is determined by location, social networks and transfer credits. Students will, therefore consider all these costs when they want to shift to another institution (Aydin, 2013). Another entry barrier is access to distribution channels. For universities that have been inexistence for a long time, they have an advantage in terms of locations that are easily accessible. They are in proximity to public transport system and a number of social amenities that students would be attracted to

However, Mathooko & Ogutu, (2015) have argued that barriers to entry in higher education was high in the past, mainly because of the need to build physical structures, but, with recent innovations in technology, there is a notable decrease in these barriers. Pringle and Huisman (2016) add another important barrier, incumbency advantages, which for higher education, include, excellent reputation, established structure, willingness of students to enroll and a complex faculty and political connections.

- **The Intensity of Competitive Rivalry**

The intensity of rivalry depends on the object of competition, namely: students, research funds, staff, government funding (Aydin, 2017). The intensity of competitive rivalry may take many forms, such as, price discounting, new product development and service improvements (Porter, 2008). In higher education industry, the intensity of competitive rivalry depends on the object of competition; students, academic staff, government funding, research funds and possibly donor funds (Mathooko and Ogutu, 2015). Intensity of rivalry increases with an increase in in the number of HEIs, both within the domestic environment and globally. Globalization in the higher education sector has increased the mobility of staff and students alike (Aydin, 2017).

- **The Power of Suppliers**

Suppliers provide materials, information or knowledge to allow an organization to produce its products and services Budiharso et al., (2022). According to Porter (2008), supplier have a bargaining power when they are few within an industry, or when they sell an essential good or service. In the context of higher education, academic staff members are the biggest suppliers of universities who provide information and teaching (Aydin,

2017). Books, computers and support services, such as, clinics and catering services are also suppliers, but they are very insignificant in higher education (Pringle and Huisman, 2016). The commercial value of academic knowledge has increased, therefore the competitive bidding for such talent tends to drive salaries upwards (Mahat & Goedegebuure, 2016). For higher education, academicians are the most significant suppliers. They may have a higher bargaining power if they differentiate themselves by their qualifications, experience and research work (Aydin, 2017).

• **The Power of Buyers**

Buyers are said to have bargaining power when they are few, or when they buy in large quantities (Porter, 2008). Powerful buyers can force down prices, demand better quality goods and service and even play competitors against one another. In addition, if buyers have many options, they become even more powerful. In the context of higher education industry, buyers are students and their parents (Pringle and Huisman, 2016). The authors further state that, buyer power has been traditionally low and that there are several factors that have led to this. These factors include inability to negotiate tuition fees; reduced student price sensitivity as a result of differentiation by prestigious institutions; and the intangible quality of education. (Duczmal, 2006) argues that the power of students increases with the number options they have. Therefore, an increase in the number of HEIs inevitably increases buyer power because the choice of institution is widened. The author further argues that students increase as the services offered become more standardized. This greatly affects the competitive position of that institution in the market (Huang & Lee, 2012). Employers are also considered as buyers or customers of higher education since they are the consumers of the higher education product, the students. Employers prefer to employ graduates from reputable and accredited institutions, therefore, graduates from accredited institutions stand a greater chance in the employment market Pringle and Huisman, 2011).

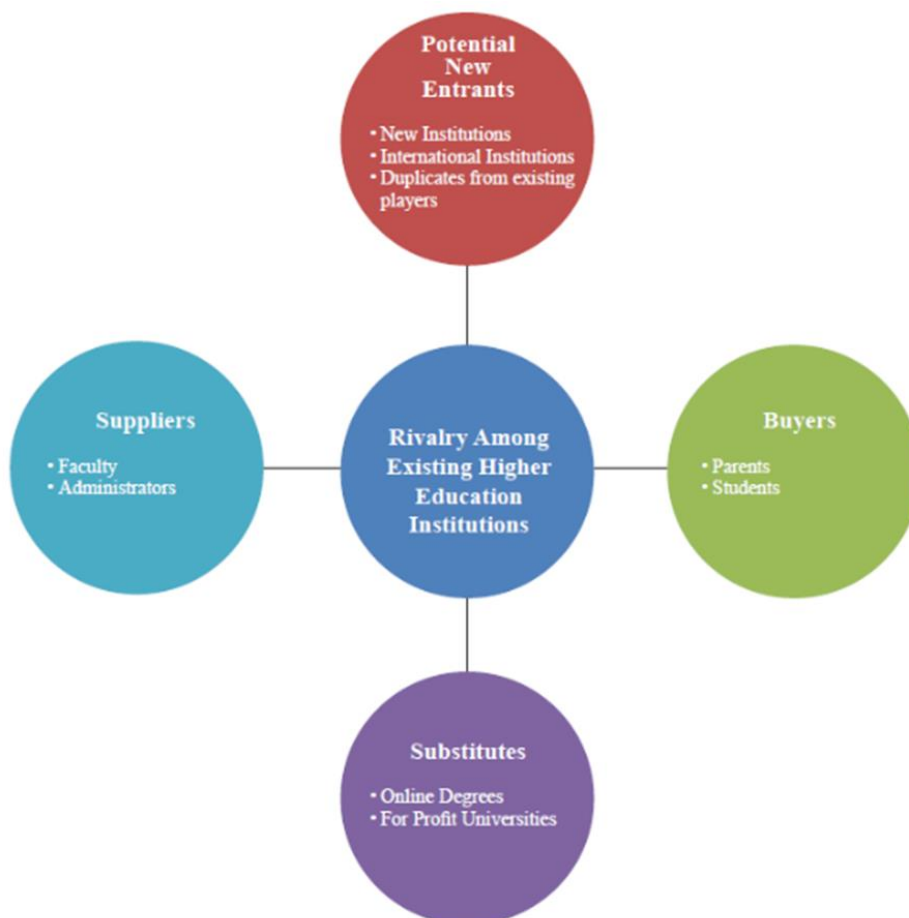


Figure 2: Porter’s Five Forces Model Application to HEI (Pringle & Huisman, 2011)

## • The Threat of Substitute Goods

A substitute product is one that performs a similar function in a different way (Porter, 2008). The threat of substitute goods is high if the substitute offers cost-effective alternatives to the goods of the industry. When the threat of substitute products is high, then industry profitability will be low. There are several factors that may determine the threat of substitutes for higher education. For higher education, threats may include vocationally oriented courses offered by different non-higher education institutions and the labour conditions for secondary school graduates (Duczmal, 2006). Additionally, the threat may come from distance and online programmes, which are now on the increase with increased access to ICT facilities (Mathooko & Ogutu, 2015). Most adult learners and working professionals demand convenient modes of delivery which can fit into their busy schedules. Additionally, students generally seek shorter completion time (Mathooko & Ogutu, 2015). Duczmal (2006) argues that the threat of substitutes for universities can be reduced by entering substitute markets. Most universities today are moving in that direction. Universities are now offering distance, and online modes, alongside their traditional face to face modes (Pringle and Huiseman, 2011).

In higher education, the value of Porter's industry analysis is in its ability to identify the factors that drive change either directly or indirectly (Duczmal, 2006b).

### **RQ3- What are the key factors in the internal environment of HEIs required for competitive advantage?**

Internal environmental forces of organisations refer to factors within an organisation that have an influence on its operations, positively or negatively. These factors may include technological capabilities, human resources, culture, and financial resources, to mention only a few. There are a number of perspectives on internal forces and their influence on competitive advantage. This paper analyses three perspectives, namely, the Resource Based view (RBV), the Dynamic Capabilities View (DCV) and the Relational View (RV),

#### **The Resource Based View**

The resource-based view can be traced back to the work of Selznick (1957) as cited in (Wang, 2014), who suggested that work organisations possess 'distinctive competences' that enables them to outperform their competitors. The basic assumption of this theory is that internal resources of a firm are a source of its competitive advantage. Furthermore, Penrose, 1959 in (Brahma & Chakraborty, 2011) conceptualized the firm as a 'collection of productive resources' and distinguished between physical and human resources. (Wang, 2014) conceives the firm as a broad collection of resources, which can be thought of as either strength or weakness of a firm. Some of the resources provided by Wang, (2014) and Ngaruko, (2014) include brand name, in-house technology, skilled personnel, machinery and efficient procedures. Barney, (1991;101) defined firm resources as "including all assets, capabilities, organizational processes, firm attributes, etc... controlled by the firm that enables it to conceive of and implement strategies that improve its efficiency and effectiveness. He further argued that sustained competitive advantage is achieved, not through an analysis of a firm's external market position, but through a careful analysis of its skills and capabilities, characteristics that competitors may find difficult to imitate. Therefore, according to Barney (1991), a firm can gain competitive advantage when it develops strategies based on internal resources, and hence, neutralize external threats. Similarly, Brahma & Chakraborty, (2011) argued that there are four major attributes of resources that determine sustainable competitive advantage, and these include durability, transparency, transferability and replicability. Organizational resources have been classified differently by different researchers.

Early researchers in the field of RBV, such as, (Ansoff, 1965) categorized firm resources into; physical, monetary and human, Barney (1991) categorized them into three groups; physical capital resources, organizational capital resources and human capital resources. Amit et al., (1993) categorized them as physical, human and technological resources. A number of other authors have contributed to this classification, and comprehensively, resources can be classified as; physical assets, human resources, financial resources, knowledge/technology and intangible resources (Lynch & Baines, 2004a)



## **Application of the Resource Based View to the Higher Education Industry**

The Resource Based View charges that the firm should identify its key or distinctive resources and develop them to maximize returns. Distinctive competences in HEIs come from several factors ( Yaping et al., 2023; Miotto et al., 2020; Sánchez-Chaparro et al., 2020; Mazzarol & Soutar, 1999). Competences may include, educational services offered, physical structures, capabilities of the human resources, reputation and institutional image. In addition, teaching and research performance, patents, location of the HEI, financial resources, capability of the HEI to innovate and organisational learning are among the many competencies HEIs may possess. When HEIs are innovative in terms of products (programs offered), curriculum and teaching methodologies, they are able to create and/ or maintain competitive advantage (Bhutto, 2018; Jeketule, 2018). Organisational experience and expertise; this gives an institution competitive advantage because it forms a basis for selection by prospective students (Patnaik et al., 2022; Aydin, 2013).

The RBV considers reputation as an intangible asset that can provide an organization with great value and advantage. According to Amado & Juarez, (2022) identifying the causes of reputation is important in ensuring an institutional differentiation strategy. HEIs with higher reputations can have higher entry requirements and attract better quality students (Amado & Juarez, 2022). Organisational learning is also another important internal resource that HEIs can adopt to improve their performance (Mainardes et. al., 2011).

While the RBV puts emphasis on organisational resources, the dynamic environment has led to a shift in attention to development of alliances and networks (Williams, 2014). It is argued that networking capabilities can be associated with superior performance. Furthermore, Wong, (2011) reports that declining student numbers, intensified international competition have increasingly made collaborations, alliances and mergers among HEIs a priority. Some authors have suggested that international collaborations have more productivity effects than domestic ones (Tuan et al., 2022). Others further add that collaborative research tends to be published in more respected journals and/or receive more citations (Šula & Banyár, 2015). Some authors have added that, coalition formation may be the most effective strategy to enter the global market (Lynch & Baines, 2004b).

### **Dynamic Capabilities View (DCV)**

The dynamic capabilities view has become one of the prominent theories that explain how firms may achieve competitive advantage. According to (Teece et al., 2003)), dynamic capabilities is a firm's ability to upgrade and renew its competencies to meet rapid changes of the environment, thereby, achieve new forms of competitive advantage. According to this view, firms do not exist in stable environments, but rather in dynamic environments (Vu, 2020; Gomes & Romão, 2018)Therefore, this view argues that firms need to develop resources both for current use and for future use (Eisenhardt & Martin, 2000). Authors who support this view add that, performance differences across firms are due to differential capacities of firms to integrate, utilize, renew and reconfigure resources in response to the dynamic environment.

Dynamic capabilities is the creation of new set of valuable resources (Kuria & Professor, 2014). From the various contributions by many authors on the concept of dynamic capabilities, it can thus be said that dynamic capabilities are aimed at developing unique resources that respond to the changes in the external environment.

### **Application of the Dynamic Capabilities View to the Higher Education Industry**

The Dynamic Capabilities view posits that in order for HEIs to remain competitive, they must continuously adapt to changes in their environment. Technological advancements have necessitated a lot of changes in the educational environment. Most universities have now adopted blended learning models, as well as offering certification at micro, in order to stay ahead of the competition (Ambrosini & Bowman, 2021). Universities may also restructure their academic departments in order to prioritize demand driven programs in response to external environmental changes (Teece, 2023).



Therefore, HEIs need to assess their internal resources so as to identify their bundle of unique resources and establish which resources they lack. Such an assessment would enable HEIs to formulate strategies that are in line with its strengths in terms of resources. The RBV and the DCV together can be used to help a firm formulate strategies that can help it attain competitive advantage.

The Dynamic Capabilities View has been criticized due to its complexity when it comes to implementation. Teece (2023) argues that the continuous reconfiguration to suit the changing environment can be quite a complex process. Additionally, the higher educational sector is usually bureaucratic and highly regulated, making it difficult respond to the changing environment. Furthermore, the emphasis on adapting to environmental dynamics may make institutions to be reactive and focus on short-term goals, instead of long term goals, which are as a result of long term planning (Dyakon, 2016). Private institutions compared to public institutions may find it much easier to adapt to environmental changes than public institutions (Teece, 2023).

### **The Relational View**

The Relational View (RV) advances the importance of strategic relational resources generated from collaboration between firms as sources of competitive advantage (Dyer & Singh, 1998). The Relational View argues that firms can gain competitive advantage when they form relationships or partnerships with other firms, rather than just relying on their internal resources or capabilities. Lu et al., (2022) asserts that, firms form partnerships as a response to the environment, in order to enhance competitive advantage, share responsibilities, risks and rewards through complementary resources. Literature shows that the relational view has been regarded both as a critique to the RBV (Wang, 2014; Sanders & Wong, 2021) as well as an extension to it. Inter-organisational networks have now characterized the order of business, and they take a number of forms, such as, strategic alliances, joint ventures, exchange programmes and buyer-supplier relationships to mention a few (Montgomery, 2019; Koch & Windsperger, 2017). The relational view has become increasingly popular as a source of competitive advantage. This view argues that a firm's competitive advantage comes from collaboration between firms. Therefore, in contrast to the resource-based-view, a firm's distinctive competences are not those developed within the firm, but those created through alliances or collaborations between firms (Dyer & Singh, 1998).

### **Application of the Relational View to the Higher Education industry**

The Relational View has its origin in the corporate world as indicated by the number of firms in the corporate that have adopted strategic alliances to combat increasing competition (Lu et al., 2022). Strategic collaborations have also become strategically significant for HEIs, (Jowi, 2024). Collaborative arrangements can take many forms, including, collaborating with government agencies, industry as well as with international institutions in a number of areas.

The higher educational sector has in recent years engaged in a number of strategic alliances. Universities can form partnerships with other universities, industry and funding organisations. These collaborations can contribute to a university's competitive edge due to unique programs, innovative research outputs, as well as commercialization of technologies (Jowi 2024; Sanders & Wong, 2021) Collaborations with industry can also ensure that curriculum is aligned with trending market needs. This increases the chances of employability for the graduates. University-industry collaboration has increased over the years, mainly due to pressures faced by both industry and universities separately (Hung, 2021; Ankrah & AL-Tabbaa, 2015). Universities can form partnerships with universities abroad in various forms, such as collaborative research projects, joint programs and student exchange programs (Fehrenbach & Huisman, 2024; Semali et al., 2013). International collaborations can improve a university's image and reputation, as well as global recognition. Other opportunities for collaborations include industry and government agencies (Mehling & Kolleck, 2019). Universities can engage in joint projects with industry and government agencies to address specific needs of universities and their respective partners (Dyer et al., 2023). Alumni engagements can also be very beneficial for universities in terms of industry linkages, financing university projects and employment placements for university graduates (Jowi, 2024). Literature shows that the choice of university is also influenced by its

alumni. Prospective students are inspired by what the alumni have become and may want to follow the same path (David & Coenen, 2015). The authors further argue that, various alumni activities have a positive influence on student retention, that is, they may increase the likelihood of alumni returning for further studies or for employment at the university.

Therefore, in the context of higher education, the sources of competitive advantage can be summarized as follows: (1) Relation-specific assets: universities can enter into collaborations with other universities or with industry to differentiate themselves from other universities and to enhance employability of their graduates (Lu et al., 2022). (2) Knowledge-sharing routines: universities can collaborate in the area of research, with government agencies, donor institutions, other universities and industry (Ankrah & AL-Tabbaa, 2015). (3) Complementary resources and capabilities: universities can collaborate with industry to develop educational tools and platforms to enhance learning experience (Waham et al., 2023) and (4) Effective governance: universities can work with alumni networks for fundraising activities as well as industry placements for their graduates (David & Coenen, 2015).

Collaborations are not without challenges and universities, just like industry, face a lot of complex challenges due to differences in national educational systems (for international collaborations), financial constraints and cultural differences (Waham et al., 2023). Universities must therefore be careful as they engage in these collaborations, not to become too dependent on external partners.

## DISCUSSION

Competitive advantage is achieved when firms leverage their internal resources, considering external environmental forces, to adopt appropriate strategies. This study proposes a conceptual framework and prepositions to examine the influence of internal environmental forces, (RBV, DCV, and RV), and external environmental forces (Porter's five forces) on a university's competitive advantage. The proposed conceptual framework, as depicted in figure 3 below, will require to be tested using both qualitative and quantitative data. It is evident from the review of literature that these forces have an influence on the competitive advantage of higher education institutions.

Internal environmental resources were reviewed through the lenses of three theories, namely: the resource-based view, the dynamic capabilities view and the relational view. Authors who have contributed to these views argue that firms, including, higher education institutions can achieve competitive advantages by leveraging their internal resources to achieve superior performance. Barney (2001; 1991) asserts that as long as a firm has internal resources that are valuable, rare, inimitable and non-substitutable (VRIN), they should be able to achieve competitive advantage. Internal resources have been classified as physical assets, human resources, financial resources, knowledge/technology and intangible resources, such as reputation, brand image and rankings (Ilieva et al., 2019; Shahsavar & Sudzina, 2017; Mainardes et al., 2011). In addition, Teece et al., (2021); Furrer et al., (2008) asserts that, for firms to achieve new forms of competitive advantages, they must upgrade and renew their competencies in response to changing environment. Furthermore, Supe et al., (2018) indicates that the competitiveness of HEIs is influenced by both internal and external forces. Technological advancements have played a key role in influencing changes in higher education. Universities have since adopted blended learning models and they have restructured their academic departments in order to meet the needs of their clients (Teece, 2023; Miandy & Hashim, 2019). Furthermore, it has been argued that networking capabilities can be associated with superior performance. Collaborations among HEIs are now on the increase due to intensified competition. Moreover, collaborations are also a way to penetrate international markets (Ambrósio et al., 2017; Elmuti et al., 2005)

The industry forces were examined through the lenses of porter's five forces. Porter (2008). Assumes that there are five forces that can affect a firm's ability to be profitable and ultimately affect its competitive advantage. Applying the five forces model to the higher education industry, buyers can be thought of as students, suppliers as lecturers and professors, rivalry as competing universities within the industry, threat of

entry as potential new training institutions and threat of substitutes as online and professional programs (Raible, 2013; Huang & Lee, 2012).

Even though the studies reviewed indicate one-sided loop from the internal to competitive advantage, there may be a possibility that competitive advantage of an HEI may attract better internal resources (e.g Human resources). This reverse relationship has not been explored. Therefore, the proposed conceptual framework needs to be empirically tested to prove the prepositions. Furthermore, the role of technology adoption needs to be further explored on how it can contribute to sustainable competitive advantage for the HEIs in response to changes in the environment.

Based on the literature reviewed, it is recommended that policy makers in these HEIs should consider improving the quality of their internal resources especially through collaborations and institutional reputation in order to attract more students, and possibly more staff.

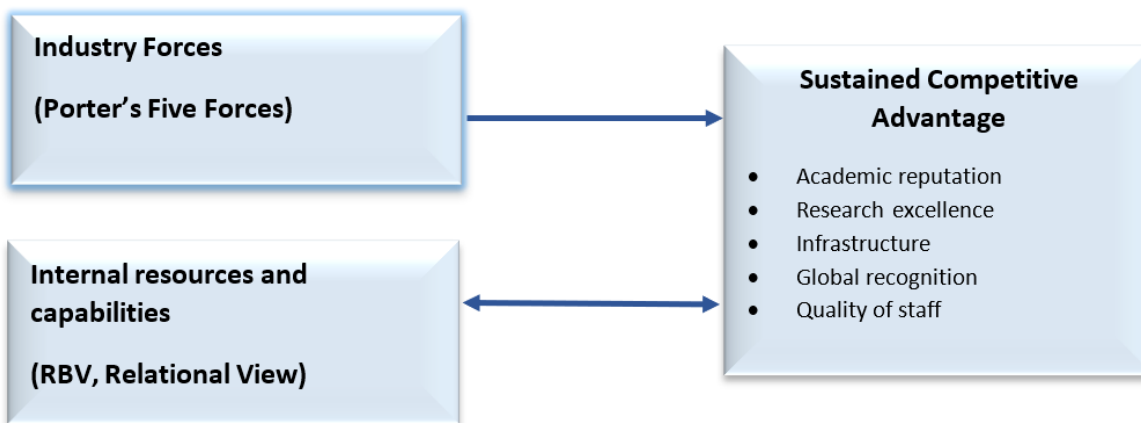


Figure 3: The Research Model

## CONCLUSIONS

This paper presents the results of the systematic review on sustainable competitive advantage for higher education institutions for a period covering 2004-2024. 60 studies were selected out of a total of 2800 potential studies. The paper concludes that both internal forces and external forces have a significant influence on the competitive advantage of HEIs. The most significant internal resources are human resources, physical resources, institutional reputation, ranking and collaborations. The most significant industry forces, based on porter's five forces are, bargaining power of suppliers, rivalry among competing universities and threat of substitute goods. The research model suggests that HEIs can achieve competitive advantage by enhancing their internal resources, managing the industry forces and developing appropriate strategies.

### Limitation

The study was limited only to historical data of publicly available articles. Therefore, the findings may not be generalizable.

### Conflict of Interest

There was no conflict of interest.

## REFERENCES

1. Abdurachman, E., Bandur, A., & Kosasih, W. (2023). *Improving Competitive Advantages of Higher Education Institutions through IT Governance , IT Excellence , and IT Innovation : A Case Study in School of Informatics Management & Computing in Indonesia*. 17(1), 103–119.

2. Amado Mateus, M., & Juarez Acosta, F. (2022). Reputation in Higher Education: A Systematic Review. In *Frontiers in Education* (Vol. 7). Frontiers Media S.A. <https://doi.org/10.3389/feduc.2022.925117>
3. Ambrósio, S., Marques, J. F., Santos, L., & Doutor, C. (2017). Higher education institutions and international students' hindrances: A case of students from the African Portuguese-speaking countries at two European Portuguese universities. *Journal of International Students*, 7(2), 367–394. <https://doi.org/10.32674/jis.v7i2.386>
4. Amit, R., Schoemaker, P. J. H., & Schoemaker, P. J. H. (1993). Amit e Schomaker, 1993 STRATEGIC ASSETS AND ORGANIZATIONAL RENT.pdf. *STRATEG Management Journal*, 14(1), 33–46. <https://doi.org/10.1002/smj.4250140105>
5. Ankrah, S., & AL-Tabbaa, O. (2015). Universities-industry collaboration: A systematic review. *Scandinavian Journal of Management*, 31(3), 387–408. <https://doi.org/10.1016/j.scaman.2015.02.003>
6. Armstrong, C. E., Drnevich, P. L., & Newbert, S. L. (2011). Conversations in Competitive Advantage: A Bibliographic Analysis of the Major Research Streams and Their Influence on the Field. *SSRN Electronic Journal*, 1–26. <https://doi.org/10.2139/ssrn.1352143>
7. Asma, S., & Rosdi, M. (2017). Resources, capabilities, strategies and competitive advantage of Research University in Malaysia. *Management Research Journal*, 6(1), 75–86.
8. Aydin, O. T. (2013). Location as a Competitive Advantage to Attract Students. *International Review of Management and Marketing*, 3(4), 204–211.
9. Aydin, O. T. (2017). Assessing the environmental conditions of higher education: in a theoretical approach using porter's five forces model. *Journal of Higher Education and Science*, 7(2), 378. <https://doi.org/10.5961/jhes.2017.215>
10. Baird, K., Nuhu, N., & Jiao, L. (2024). *The Effect of Porter's Competitive Forces on Competitive advantage and organisational performance and the*.
11. Barney, J. B. (1991). Resource Based View of Strategy. *Journal of Management*, 97–211.
12. Barney, J., Wright, M., & Ketchen, D. J. (2001). *The resource-based view of the firm : Ten years after 1991*. 27, 625–641.
13. Bhutto, S. A. (2018). *Sindh Madressatul Islam University , Karachi. September*.
14. Brahma, S. S., & Chakraborty, H. (2011). From Industry to Firm Resources : Resource-Based View of Competitive Advantage. *Journal of Business*, 8(2), 7–21. <http://content.ebscohost.com/ContentServer.asp?T=P&P=AN&K=62293719&S=R&D=buh&EbscoContent=dGJyMMvI7ESeprM4wtvhOLCmr0mepRBSsqe4SLaWxWXS&ContentCustomer=dGJyMPGrtVG3p69QuePfgex44Dt6fIA>
15. Connolly, T. M., Soflano, M., & Papadopoulos, P. (2022). *Systematic Literature Review* (pp. 161–188). <https://doi.org/10.4018/978-1-6684-5092-5.ch008>
16. Dälken, A. F. (2014). *Are Porter ' s Five Competitive Forces still Applicable ? A Critical Examination concerning the Relevance for Today ' s Business*.
17. David, A., & Coenen, F. (2015). *Alumni Networks - An Untapped Potential to Gain and Retain Highly-Skilled Alumni Networks — An Untapped Potential to Gain and Retain Highly-Skilled Workers ? September 2014*. <https://doi.org/10.5539/hes.v4n5p1>
18. Duczmal, W. (2006a). *The Rise of Private Higher Education in Poland: Policies, Markets and Strategies*. [https://www.utwente.nl/bms/cheps/phdportal/CHEPS Alumni and Their Theses/thesisduczmal.pdf%0Ahttps://research.utwente.nl/en/publications/the-rise-of-private-higher-education-in-poland-policies-markets-a](https://www.utwente.nl/bms/cheps/phdportal/CHEPS_Alumni_and_Their_Theses/thesisduczmal.pdf%0Ahttps://research.utwente.nl/en/publications/the-rise-of-private-higher-education-in-poland-policies-markets-a)
19. Duczmal, W. (2006b). *The Rise of Private Higher Education in Poland: Policies, Markets and Strategies*.
20. Dyakon, A. (2016). *Competitive advantages of the national higher education system in the context of globalization*. 01(01).
21. Dyer, J. H., & Singh, H. (1998). The Relational View: Cooperative Strategy and Sources of Interorganizational Competitive Advantage. *The Academy of Management Review*, 23(4), 660. <https://doi.org/10.2307/259056>
22. Eisenhardt, K. M., & Martin, J. A. (2000). *DYNAMIC CAPABILITIES : WHAT ARE THEY? 1121, 1105–1121*.



23. Elmuti, D., Abebe, M., & Nicolosi, M. (2005). An overview of strategic alliances between universities and corporations. In *Journal of Workplace Learning* (Vol. 17, Issues 1–2, pp. 115–129). <https://doi.org/10.1108/13665620510574504>
24. Fehrenbach, H., & Huisman, J. (2024). A Systematic Literature Review of Transnational Alliances in Higher Education: The Gaps in Strategic Perspectives. *Journal of Studies in International Education*, 28(1), 33–51. <https://doi.org/10.1177/10283153221137680>
25. Furrer, O., Sudharshan, D., Thomas, H., & Tereza Alexandre, M. (2008). Resource configurations, generic strategies, and firm performance: Exploring the parallels between resource-based and competitive strategy theories in a new industry. *Journal of Strategy and Management*, 1(1), 15–40. <https://doi.org/10.1108/17554250810909400>
26. Gomes, J., & Romão, M. (2018). Gaining Sustainable Competitive Advantage. *International Journal of Computers in Clinical Practice*, 3(1), 13–26. <https://doi.org/10.4018/ijccp.2018010102>
27. Goyal, A. (2021a). *A Critical Analysis of Porter's 5 Forces Model of Competitive Advantage*. January. <https://doi.org/10.1729/Journal.25126>
28. Goyal, A. (2021b). *A Critical Analysis of Porter's 5 Forces Model of Competitive Advantage*. January. <https://doi.org/10.1729/Journal.25126>
29. Haan, H. H. de. (2015). Competitive Advantage, What Does it Really Mean in the Context of Public Higher Education Institutions? *International Journal of Educational Management*, 29(1), 44–61. <http://dx.doi.org/10.1108/IJEM-07-2013-0115>
30. Haddaway N. R, Page M.J, Pritchard C.C, & Mcguinness L.A. (2022). *An R package and Shiny app for producing PRISMA 2020-compliant flow diagrams, with interactivity for optimised digital transparency and Open Synthesis Campbell Systematic*.
31. HIGHER EDUCATION AUTHORITY *Ensuring Quality in Higher Education THE STATE OF HIGHER EDUCATION IN ZAMBIA 2022 Curricula in Higher Education*. (n.d.).
32. Huang, H. I., & Lee, C. F. (2012). Strategic management for competitive advantage: A case study of higher technical and vocational education in Taiwan. *Journal of Higher Education Policy and Management*, 34(6). <https://doi.org/10.1080/1360080X.2012.727635>
33. Hung, N. T. (2021). Higher education in business: a model for international students' choice. *Business Process Management Journal*, 27(6), 1804–1821. <https://doi.org/10.1108/BPMJ-11-2020-0516>
34. Ilieva, J., Killingley, P., & Tsiligiris, V. (2019). *The Shape of Global Higher Education: International Comparisons With Europe*. 54. [https://www.britishcouncil.org/sites/default/files/k006\\_02\\_the\\_shape\\_of\\_global\\_higher\\_education\\_in\\_europe\\_final\\_v5\\_web.pdf](https://www.britishcouncil.org/sites/default/files/k006_02_the_shape_of_global_higher_education_in_europe_final_v5_web.pdf)
35. Išoraitė, M. (2018). *The competitive advantages theoretical aspects*. 7(1).
36. Jeketule, J. S. (2018). Intangible Assets for Sustainable Competitive Advantage in Institutes of Higher Learning. *Msingi Journal*, 1(1). <https://doi.org/10.33886/mj.v1i1.57>
37. Jowi, J. O. (2024). Recent developments in higher education in Africa: partnerships for knowledge transformations. *Journal of International Cooperation in Education*, 26(1), 34–48. <https://doi.org/10.1108/jice-11-2023-0037>
38. Koch, T., & Windsperger, J. (2017). *Seeing through the network : Competitive advantage in the digital economy*. <https://doi.org/10.1186/s41469-017-0016-z>
39. Kuria, T. J., & Professor, A. (2014). Theoretical Underpinnings of Dynamic Capabilities. *European Journal of Business and Social Sciences P.P*, 3(9), 181–190.
40. Lehmann, E. E., Meoli, M., Paleari, S., & Stockinger, S. A. E. (2020). The role of higher education for the development of entrepreneurial ecosystems. *European Journal of Higher Education*, 10(1), 1–9. <https://doi.org/10.1080/21568235.2020.1718924>
41. Loh, T. H. (2011). Sustainable Competitive Advantage for Market Leadership Amongst The Private Higher Education Institutes in Malaysia. *Journal of Global Management*, 2(2).
42. Lu, Y., Lin, C., Hu, B., Lin, S., & Lee, C. (2022). *Strategic Alliances in Institutions of Higher Education to promote Sustainable Development Goals : A case study from two universities in Taiwan*. 20(2), 20–40.



43. Lynch, R., & Baines, P. (2004a). Strategy development in UK higher education: Towards resource-based competitive advantages. *Journal of Higher Education Policy and Management*, 26(2), 171–187. <https://doi.org/10.1080/1360080042000218249>
44. Lynch, R., & Baines, P. (2004b). Strategy development in UK higher education: Towards resource-based competitive advantages. *Journal of Higher Education Policy and Management*, 26(2), 171–187. <https://doi.org/10.1080/1360080042000218249>
45. Lysokon, I., Rih, K., Vasyliuk, T., Barulina, Y., & Zakharova, H. (2024). EDUCATIONAL MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS: STRATEGIES FOR QUALITY AND COMPETITIVENESS MANAGEMENT GESTÃO EDUCACIONAL EM INSTITUIÇÕES DE ENSINO SUPERIOR: ESTRATÉGIAS PARA GESTÃO DA QUALIDADE E COMPETITIVIDADE Ivanna Razmolodchykova. *Technology and Society*, 73–84. <https://doi.org/10.14571/brajets.v17.nse1.2024>
46. Mahat, M., & Goedegebuure, L. (2016). *Strategic Positioning in Higher Education: Reshaping Perspectives*. January, 223–244. <https://doi.org/10.1108/s2056-375220160000002011>
47. Mainardes, E. W., Ferreira, J. M., & Tontini, G. (2011). Creating a competitive advantage in Higher Education Institutions: proposal and test of a conceptual model. *International Journal of Management in Education*, 5(2–3), 145–168. <https://doi.org/10.1504/IJMIE.2011.039482>
48. Ma, J., & Montgomery, C. (2019). Constructing Sustainable International Partnerships in Higher Education: Linking the Strategic and Contingent Through Interpersonal Relationships in the United Kingdom and China. *Journal of Studies in International Education*, 1–16. <https://doi.org/10.1177/1028315319865784>
49. Mathooko, F. M., & Ogotu, M. (2015). Porter’s five competitive forces framework and other factors that influence the choice of response strategies adopted by public universities in Kenya. *International Journal of Educational Management*, 29(3). <https://doi.org/10.1108/IJEM-12-2013-0187>
50. Mazzarol, T., & Soutar, G. N. (1999). Sustainable competitive advantage for educational institutions: A suggested model. *International Journal of Educational Management*, 13(6), 287–300. <https://doi.org/10.1108/09513549910294496>
51. Mehling, S., & Kolleck, N. (2019). Cross-sector collaboration in higher education institutions (HEIs): A critical analysis of an urban sustainability development program. *Sustainability (Switzerland)*, 11(18). <https://doi.org/10.3390/su11184982>
52. Miotto, G., Del-Castillo-Feito, C., & Blanco-González, A. (2020). Reputation and legitimacy: Key factors for Higher Education Institutions’ sustained competitive advantage. *Journal of Business Research*, 112. <https://doi.org/10.1016/j.jbusres.2019.11.076>
53. M.Miandy Munusamy, & Azirah Hashim. (2019). Internationalisation of Higher Education in Malaysia: Insights From Higher Education Administrators. *Asia-Europe Institute*, 5(1), 21–39.
54. Mugo, P. (2020a). PORTER ’ S FIVE FORCES INFLUENCE ON COMPETITIVE ADVANTAGE IN TELECOMMUNICATION INDUSTRY IN KENYA Peter Mugo. *European Journal of Business and Strategic Management*, 5(2).
55. Mugo, P. (2020b). PORTER ’ S FIVE FORCES INFLUENCE ON COMPETITIVE ADVANTAGE IN TELECOMMUNICATION INDUSTRY IN KENYA Peter Mugo. *European Journal of Business and Strategic Management*, 5(2).
56. Ngaruko, D. D. (2014). Building Competitive Advantage in Academic Programmes in Open and Distance Learning (ODL) Institutions: Case of The Open University of Tanzania. *Huria: Journal of the Open University of Tanzania*, 18(1), 135–154.
57. Patnaik, S., Munjal, S., Varma, A., & Sinha, S. (2022). Extending the resource-based view through the lens of the institution-based view: A longitudinal case study of an Indian higher educational institution. *Journal of Business Research*, 147. <https://doi.org/10.1016/j.jbusres.2022.03.091>
58. Porter, M. E. (2008). “The Five Competitive Forces That Shape Strategy.” Special Issue on HBS Centennial. *Harvard Business Review*, 86(1), 78–93.
59. Porter, M. E., & Canada, M. M. (1985). *COMPETITIVE Creating and Sustaining*. Free Press Macmillan.

60. Pringle, J., & Huisman, J. (2011). Understanding Universities in Ontario, Canada: An Industry Analysis Using Porter's Five Forces Framework. *Canadian Journal of Higher Education*, 41(3). <https://doi.org/10.47678/cjhe.v41i3.2489>
61. Pringle, J., & Huisman, J. (2016). *CSSHE SCÉES Understanding Universities in Ontario, Canada: An Industry Analysis Using Porter's Five Forces Framework*. 41(3), 36–58.
62. Raible, M. (2013). Industrial Organization theory and its contribution to decision-making in purchasing. *2nd IBA Bachelor Thesis Conference*, 1–13. <http://essay.utwente.nl/64302/>
63. Sánchez-Chaparro, T., Gómez-Frías, V., & González-Benito, Ó. (2020). Competitive implications of quality assurance processes in higher education. The case of higher education in engineering in France. *Economic Research-Ekonomika Istrazivanja*, 33(1). <https://doi.org/10.1080/1331677X.2019.1697329>
64. Sanders, J. S., & Wong, T. (2021). International partner selection among higher education institutions in Hong Kong, Singapore and Japan: a resource-based view. *Journal of Higher Education Policy and Management*, 43(2). <https://doi.org/10.1080/1360080X.2020.1774097>
65. Semali, L. M., Baker, R., & Freer, R. (2013). Multi-Institutional Partnerships for Higher Education in Africa: A Case Study of Assumptions of International Academic Collaboration. *International Journal of Higher Education*, 2(2). <https://doi.org/10.5430/ijhe.v2n2p53>
66. Shahsavari, T., & Sudzina, F. (2017). Student satisfaction and loyalty in Denmark: Application of EPSI methodology. *PLoS ONE*, 12(12), 1–18. <https://doi.org/10.1371/journal.pone.0189576>
67. Sigalas, C., & Pekka-economou, V. (2018). *Arising From Its Conceptualization*. February 2013. <https://doi.org/10.1108/JSMA>
68. Sikwibele, A. (2007). The contribution of higher education to national systems: the case of Zambia. *UNESCO Forum African Research Seminar, Accra, Ghana, March 2007, and Published in the Proceedings (Editors: AAU-UNESCO Forum), 22 March., March.* [http://ahero.uwc.ac.za/index.php?module=cshe&action=viewtitle&id=cshe\\_209](http://ahero.uwc.ac.za/index.php?module=cshe&action=viewtitle&id=cshe_209)
69. *Strategy Education Strategy*. (2021).
70. Šula, T., & Banyár, M. (2015). Innovative Marketing as a Tool for Building a Positive Image of an Institution of Higher Education and Increasing the Competitiveness of its Graduates – Analysis of the Functional Use of Projects of the Department of Marketing Communications at the Facult. *Procedia - Social and Behavioral Sciences*, 175, 146–153. <https://doi.org/10.1016/j.sbspro.2015.01.1185>
71. Supe, L., Zeps, A., Jurgelane, I., & Ribickis, L. (2018). Factors affecting the competitiveness of a higher education institution: Systematic literature overview. *Research for Rural Development*, 2, 245–251. <https://doi.org/10.22616/rrd.24.2018.079>
72. Teece, D. J. (2023). The Evolution of the Dynamic Capabilities Framework. In *FGF Studies in Small Business and Entrepreneurship* (pp. 113–129). Springer Science and Business Media Deutschland GmbH. [https://doi.org/10.1007/978-3-031-11371-0\\_6](https://doi.org/10.1007/978-3-031-11371-0_6)
73. Teece, D. J., Pisano, G., & Shuen, A. (2003). Dynamic capabilities and strategic management. *Essays in Technology Management and Policy: Selected Papers of David J. Teece*, 18(7), 77–120. [https://doi.org/10.1142/9789812796929\\_0003](https://doi.org/10.1142/9789812796929_0003)
74. Thomas, H., & Peters, K. (2012). A sustainable model for business schools. *Journal of Management Development*, 31(4), 377–385. <https://doi.org/10.1108/02621711211219031>
75. Tuan, K. M., Trang, K. H., & Quan, N. H. (2022). COMPREHENSIVE REVIEW OF THE SOURCES OF COMPETITIVE ADVANTAGES. *Hue University Journal of Science: Economics and Development*, 131(5B). <https://doi.org/10.26459/hueunijed.v13i5b.6828>
76. Vu, H. M. (2020). A review of dynamic capabilities, innovation capabilities, entrepreneurial capabilities and their consequences. *Journal of Asian Finance, Economics and Business*, 7(8), 485–494. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO8.485>
77. Waham, J. J., Asfahani, A., & Ulfa, R. A. (2023). *Global Trends in Higher Education : A Comparative Analysis of Enrollment and Quality Assurance Mechanisms*. 1(1), 49–60.
78. Wang, H.-L. (2014a). Theories for competitive advantage. *Being Practical with Theory: A Window into Business Research*, 33–43.
79. Wang, H.-L. (2014b). Theories for competitive advantage. *Being Practical with Theory: A Window into Business Research*, 33–43.

80. Williams, S. D. (2014). A Strategic Resource-Based View of Higher Education Institutions' Resources. *International Journal of Business and Social Science*, 5(12), 8–23.
81. Wong, J.-M. (2011). A Relational View of Resources-based Theory: The case of Internationalization of Li & Fung Group. *The Journal of Human Resource and Adult Learning*, 7(2), 34–39. [http://search.proquest.com.ez.library.latrobe.edu.au/docview/1016739832?rfr\\_id=info%3Axri%2Fsid%3Aprimo](http://search.proquest.com.ez.library.latrobe.edu.au/docview/1016739832?rfr_id=info%3Axri%2Fsid%3Aprimo)
82. Yaping, X., Huong, N. T. T., Nam, N. H., Quyet, P. D., Khanh, C. T., & Anh, D. T. H. (2023). University brand: A systematic literature review. In *Heliyon* (Vol. 9, Issue 6). <https://doi.org/10.1016/j.heliyon.2023.e16825>