Araştırma Makalesi
Research Article

# Revenue Diversification in Higher Education Institutions: A Systematic Literature Review

## Yükseköğretim Kurumlarında Gelir Çeşitlendirmesi: Sistematik Literatür Taraması

Sorumlu Yazar
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### Abstract

This study aims to screen the revenue diversification strategies of higher education institutions worldwide. It will shed light on the academic discussion on various ways of income generation and related trends in the context of universities. This paper employs a systematic literature review (SLR) method using the Web of Science and Scopus databases. The timeframe included in the study is from 2004 to 2024. With each category revealing critical features of revenue diversification strategies in higher education, this analysis has found five dominant themes in the selected literature. While the available literature was selected through keyword entries to save time and effort, only peer-reviewed articles were included, avoiding other potential sources such as books and doctoral dissertations related to the field. Researchers, policy makers, and managers concerned with revenue diversification in higher education can benefit from this study, as it strives to identify gaps in the field, provide suggestions for better implementation of RD strategies, and facilitate insights into regulation improvements. This research can help scientists concentrate on the research gaps by providing synthesized knowledge about income diversification in higher education, as it utilizes the SLR method, which is crucial for integrating and showcasing the scientific evidence emerging from quantitative and qualitative literature.

**Keywords:** revenue diversification, income diversification, higher education institutions, universities, SLR, literature review

### Öz

Bu çalışma, dünya genelindeki yükseköğretim kurumlarının gelir çeşitlendirme stratejilerini taramayı amaçlamaktadır. Üniversiteler bağlamında çeşitli gelir yaratma yolları ve ilgili eğilimler hakkındaki akademik tartışmalara ışık tutacaktır. Bu çalışmada, Web of Science ve Scopus veri tabanları kullanılarak sistematik literatür taraması (SLR) yöntemi kullanılmıştır. Çalışmaya dahil edilen zaman dilimi 2004'ten 2024'e kadardır. Yükseköğretimde gelir çeşitlendirme stratejilerinin kritik özelliklerini ortaya koyan her bir kategori ile bu analiz, seçilen literatürde beş baskın tema bulmuştur. Mevcut literatürün seçimi, zamandan ve emekten tasarruf etmek için anahtar kelime girişleri yoluyla yapılırken, alanla ilgili kitaplar ve doktora tezleri gibi diğer potansiyel kaynaklardan kaçınarak yalnızca hakemli makaleler dahil edilmiştir. Yükseköğretimde gelir çeşitlendirmesi alanıyla ilgilenen araştırmacılar, karar mercileri ve yöneticiler, alandaki boşlukları tespit etmeye çalıştığı, RD stratejilerinin daha iyi uygulanmasına yönelik öneriler sunduğu ve düzenlemelerdeki iyileştirmelere yönelik içgörüleri kolaylaştırdığı için bu çalışmadan faydalanabilir. Bu araştırma, nicel ve nitel literatürden ortaya çıkan bilimsel kanıtları bütünleştirmek ve sergilemek için çok önemli olan SLR yöntemini kullandığından, yükseköğretimde gelir çeşitlendirmesi hakkında sentezlenmiş bilgi sağlayarak bilim insanlarının araştırma boşluklarına odaklanmasına yardımcı olabilir.

**Anahtar Sözcükler:** gelir çeşitlendirme, yükseköğretim kurumları, üniversiteler, SLR, literatür taraması

BABUR RESEARCH

## 1. Introduction

Expansion and enlargement of alternative revenue sources to achieve financial prowess in higher education institutions (HEIs) is the prime goal of revenue diversification (RD). This reduces the reliance on tuition fees and government grants by adopting third-stream revenue generation initiatives such as income from intellectual property, commercial contracts, endowments, and goods and services (Garland, 2020; Handayani et al., 2023; Jaafar et al., 2023). Diversification is crucial for HEIs as it provides many advantages on the path to financial sustainability, including mitigating financial risks related to dependence on limited income sources (Garland, 2020; Teixeira et al., 2014), making institutions more innovative and flexible in their operations (Biagi et al., 2024; Gudmanian et al., 2020), and firmly positioning diversified institutions in the competitive higher education landscape (Biagi et al., 2024; Teixeira et al., 2014). Despite accommodating a plethora of benefits, diversification may face challenges like maintaining a balance between entrepreneurial initiatives and traditional academic values (Teichler, 2010), and careful handling of contextual factors such as size, location, age and central missions of institutions (Biagi et al., 2024; Teixeira et al., 2014).

Although the existing literature contains information about the increasing role of revenue diversification in the higher education sector, along with a focus on the types of strategies and widespread issues across different country contexts, it fails to present an integrated and comprehensive picture of an evolving diversification landscape in higher education. In other words, individual research generally highlights specific diversification methods such as philanthropy, online education, and entrepreneurship, or examines diversification issues only within a single geographical area, lacking a comparative and generalizable contribution. Consequently, to ascertain overarching themes and generate valuable insights from their critical intersections, there is a need for a systematic synthesis of the diverse research threads available in the literature, ranging from diversification drivers, challenges, impacts, strategy diversity, to regional contexts. Moreover, while studies have suggested that diversification efforts are critical in higher education, the specific focus on conditions affecting the success of revenue diversification strategies is limited.

To address the aforementioned gaps, this paper explores the literature about revenue diversification strategies adopted and/or planned by higher education institutions (HEIs) around the globe from 2004 to 2024. In the process, the study utilizes 15 selected research papers to systematically identify, evaluate, and synthesize findings from the covered sources to render crosscutting and holistic insights on revenue diversification in higher education. Furthermore, this will provide crucial insights to academics and policymakers to help them better understand the variety and trends in HEIs' income diversification policies. A systematic literature review (SLR) method has been used to achieve this objective. The proposed SLR will further ascertain if it is possible to discover the most popular revenue diversification strategies "globally" and other emerging trends in the field.

The study starts with a description of the background research context, followed by research methodology, results and details, discussion, and conclusion sections.

**2. Background and Research Context**

The expansion of the variety of sources of income for stabilised economic performance and the reduction of dependence on a single revenue source are termed revenue diversification. It particularly plays a crucial role for entities in problematic financial crises as it facilitates the maintenance of a balanced budget and improved financial performance (Chikoto-Schultz & Sakolvittayanon, 2020; Jordan & Wagner, 2008). Although diversifying the revenue sources has immense advantages, it also faces challenges like adverse outcomes stemming from misalignment between an organisation's capabilities and its mission (Chikoto-Schultz & Sakolvittayanon, 2020; Sjoquist & Stoycheva, 2012). The success of revenue diversification strategies also depends on various volatile factors such as institutional environments, economic conditions, and the types of income diversification activities (Nisar et al., 2018; Rossi et al., 2020; Yan, 2012).

For higher education institutions, revenue diversification strategies play an important role in fighting financial distress, which is continuously caused by reduced public funding and macroeconomic issues. Diversification helps HEIs mitigate the effects of financial pressures by creating alternative income streams and making those institutions economically sustainable in the long run (Garland, 2020; Jaafar et al., 2023; Le et al., 2021). Furthermore, institutions that solely depend on a single revenue stream, like tuition fees, are highly vulnerable HEIs. For instance, some Australian universities faced a grave Financial crunch in the face of the COVID-19 pandemic, as that period witnessed a slump in the number of incoming ınternational students, which highlighted the crucial role of income diversification strategies to reduce the financial risk to minimal levels (Thatcher et al., 2020). In addition, income diversification may also lead to improved Financial indicators in higher education institutions, as seen in the Malaysian universities example, which shows that there is a significant positive link between financial metrics such as return on assets (ROA) and diversified income streams (Jaafar et al., 2023). Microfinance institutions, like universities, also utilise diversification policy to improve their profitability and financial sustainability (Zamore, 2018). Income diversification is not just any economic initiative. However, it is also integrated into higher education policy in many HEIs worldwide to reduce the financial burden on those institutions. According to Le et al. (2021), inadequate diversity of income sources in Vietnamese public universities has made them adopt a performance-based financial allocation and capacity-building program to improve entrepreneurship skills and raise new funds. Likewise, Ethiopian universities have utilised diversification strategies and cost-sharing methods to supplement public funding, improve higher education management, and enhance academic prowess (Yizengaw, 2007).

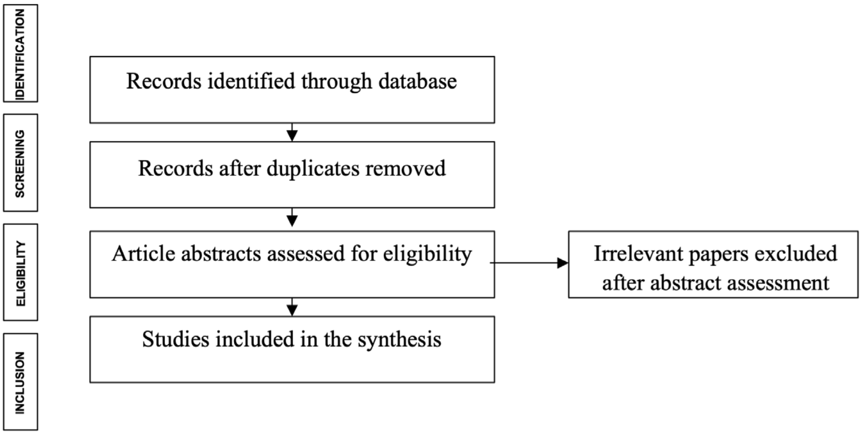
HEI funding patterns have evolved over the last decades. These patterns are mainly affected by social, economic, and political influences. Dolenec (2006) mentions that welfare state regimes in Western Europe from the 1980s to 2000 had a decisive say in higher education funding policies that led to the reform structuring, despite some countries' reluctance to conform to those policies because of the unique nature of funding for higher education. Later, the regions favouring the establishment of public universities began to shift towards founding private higher education institutions (HEIs), mainly due to changes in international development funds and supranational pressures (Buckner, 2017). The remarkable increase in the number of private higher education institutions globally led to a change in public financial support, too, with instruments such as student financial aid and tax relaxations gaining more popularity (Salerno, 2004). 1990 onwards, the HEIs in the US witnessed a hike in earnings from students and their families, which was supported by federal student loans and financial aid. On the other hand, this period also marked a decline in state contributions, forcing higher education institutions to chase alternative funding options (Geiger & Heller, 2012). Although state funding underwent an efficient overhaul in the form of metric-based funding, i.e., funding based on enrollment and performance indicators, the national financial landscape pressured governments to exercise funding cuts across the board, drastically affecting already struggling institutions (Kelchen et al., 2024; Laderman et al., 2023). During the period of 1998 to 2006, European-level policies like the Bologna Declaration and the Lisbon Strategy increased the pressure on per-student expenditure from public funds to private financial resources across EU-15 countries (Agasisti et al., 2012). Moreover, stemming from the public funding shortage, some popular recent trends in her education funding include international products, grants, business contracts, and student fees (Ansari, 2023). Specifically, in the case of student fees, the financial burden being borne by students and their families has evolved as a prominent phenomenon (Zeleza & Zeleza, 2016). Thus, it can be observed that the history of financing higher education displays a complicated relationship between national and international influences, policy reforms, and economic conditions. The key trends shaping the landscape of funding for higher education consist of the visible change towards privatisation, adoption of performance-based financing models, and heavier reliance on private funding sources.

In the modern higher education setup, some income diversification strategies are widely recognised around the world. One of the most prevalent alternative income sources is the third stream revenue, which generally includes income from activities like intellectual property commercialisation, industry partnerships, and consultancy services, which are not related to the core higher education activities, i.e., research and instruction. Garland (2020) mentions that many universities in England have financially improved after embedding third-stream income generation activities into their operations. Additionally, some UK universities that establish startups, licensing, and patents seem to have enhanced funding for research, indicating a viable strategy of diversification. Engaging in partnerships and collaborations with businesses and industries to perform projects and research on a contract basis improves the financial indicators of a higher education institution, leading to a high level of available income for academic research initiatives by the university staff and students (Johnston et al., 2023). Similarly, Sohar University in Oman has efficiently attracted partnership Investments from local and international private bodies to support the research and development of the university (Al Fazari, 2022). Furthermore, HEIs also resort to performance-based funding, which has gained importance recently in OECD countries, wherein they allocate resources according to graduation rates, research output, and other similar performance indicators (Jongbloed, 2023). According to Djakona et al. (2021), strengthening the information economy by utilising innovative digital technologies, higher education institutions in countries like Ukraine and Latvia are leading the way and facilitating alternative income generation. Lastly, as vividly visible in the Portuguese case, even academic programs that are in high market demand seem to attract a large number of students, paving the way for increased income generation through tuition (Teixeira et al., 2013).

## 3. Research methods

In this systematic literature review, the keywords used for searching both databases were: (“revenue diversification” OR “income diversification” OR “alternative revenue*”) AND (“higher education*” OR “university*” OR “higher education institution*”) AND (“strategy*” OR “model*” OR “approach*”)). Using the asterisk at the end of the keyword captures all possible variations of these in the titles, abstracts, and keywords (“topic” option) of the selected articles. Initial search results rendered 23 total documents for the Web of Science (topic search) and 29 total documents for Scopus (titles, abstracts, and keywords search) for the period of 2005-2024. Concerning both the Web of Science and Scopus databases, to ensure the research quality, the filter applied was “articles” in English. This comprehensive search yielded 41 peer-reviewed articles (Web of Science - 18 items, and Scopus - 23 items). Then, the results were examined for duplicated papers (simultaneously originating from both databases). Next, the irrelevant articles were removed after the inspection of abstracts, leaving behind 15 articles for the final study.

**Figure 1:** PRISMA Flowchart.




**Source:** Author's illustration based on Moher et al. (2009)

**4. Results and Findings**

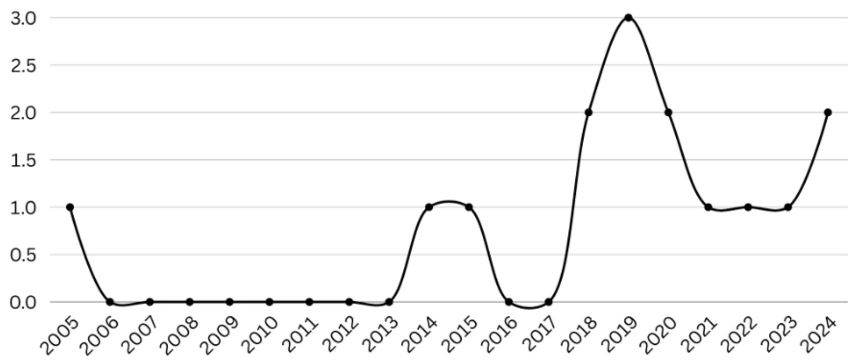
This study shows that the number of publications in the field was relatively low till 2013, and most of the publications emerged between 2014 and 2024 (see Figure 2). However, studies were performed in surprisingly diverse regions, making this research topic popular in various parts of the world. The geographical contexts of studies included the United States, Malaysia, the United Kingdom, Ukraine, China, and Portugal, as seen in Figure 2.

This paper also aimed to ascertain the journals that published the most articles selected in this study, and found that only international journals of education management and research in higher education journals accommodated two articles each. Each remaining journal covered one article under this study (see Table 1).

Furthermore, the study observed some disproportions in the citation of the selected articles. Figure 3 shows the number of papers cited 1 to 10 times, 11 to 20 times, 21 to 30 times, 31 to 40 times, 41 to 50 times, 51 to 60 times, and 61 times and above. Only one paper was in the category of "61 and above"; the highest number of papers was in the category of "1-10" citations.

Each article was rigorously screened for coding the emerging themes in terms of the abstract, key findings, and any other crucial contributions. Subsequently, all the important ideas and sub-themes (such as declining government funding, rising costs, marketization, external shocks, tuition fees, research grants and commercialization, philanthropy and endowments, online education and lifelong learning programs, asset monetization, corporate alliances, hybrid financing, limited institutional autonomy, regulatory burdens, internal cultural resistance, staffing issues, quality versus cost issues, market competition, and others) were assembled and used to construct the most dominant final thematic categories for SD literature (drivers and pressures, diverse revenue streams, challenges and barriers, impacts, and contexts). Key information about all the selected articles can be found in Table 2. According to the study, revenue diversification contexts emerged as the most popular category, followed by drivers and pressures of diversification, diverse revenue streams, challenges and barriers, and impacts of revenue diversification.

**Figure 2.** The number of articles in specific years



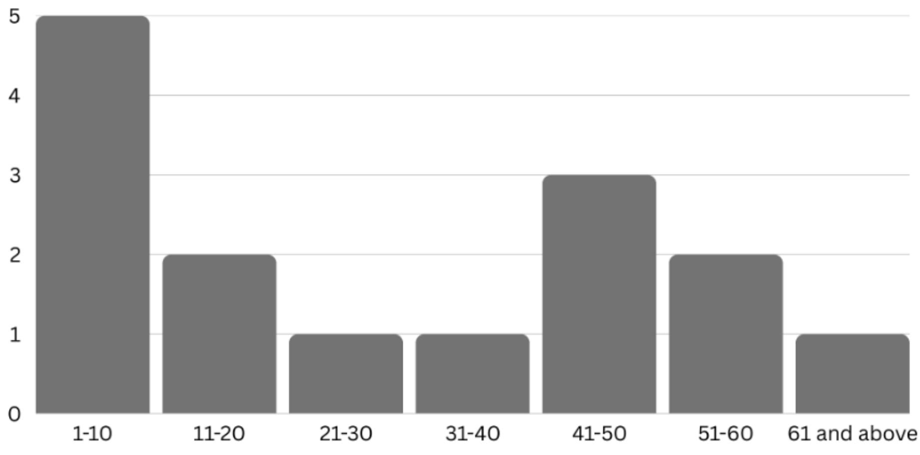

**Source:** Authors' elaboration (n = 15)

**Table 1.** Number of articles published in specific journals most relevant to the studied topic

| Journal Name | Number of Articles |
|---|---|
| *International Journal of Educational Management* | 2 |
| *Research in Higher Education* | 2 |
| *European Journal of Higher Education* | 1 |
| *Journal of Extension* | 1 |
| *Management and Accounting Review* | 1 |
| *Accounting, Auditing and Accountability Journal* | 1 |
| *Perspectives: Policy and Practice in Higher Education* | 1 |
| *Journal of Risk and Financial Management* | 1 |
| *International Journal of Educational Organisation and Leadership* | 1 |
| *European Journal of Education* | 1 |
| *Higher Education Policy* | 1 |
| *Oxford Review of Education* | 1 |
| *Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu* | 1 |

**Source**: Authors' elaboration

**Figure 3.** Number of articles per citation number scale




**Source:** Authors' elaboration (n = 15)

**4.1. Revenue Diversification Related Drivers and Pressures**

A consistent fall in government spending on higher education has been observed across almost all the examined articles. This trend has triggered calls for the inclusion of fiscal austerity and the adoption of theories like the New Public Management (NPM) (Garland, 2020; Irvine & Ryan, 2019; Hickey, 2024). According to Brint (2022), many US universities are seeking alternative revenue resources due to a steady decline in state subsidies for university programs in the last four decades. Capital outlays in higher education have been very volatile in the United States, which also reflects the unstable structure of Public funding. Similarly, huge government funding cuts have been observed in universities in Malaysia (Jaafar et al., 2023), the United Kingdom (Hickey, 2024), Ukraine (Yurchyshena et al., 2024), and Australia (Irvine & Ryan, 2019).

Continuously rising costs due to competitive salaries, pensions, infrastructure needs, increasing student numbers, and administrative growth, along with the reduction in government financing, have made the financial burden on universities worse (Brint, 2022; Garland, 2020). Furthermore, massification in terms of the rising number of students places heavier financial pressure on universities' budgets by intensifying the requirement for staff and facilities (Nik Ahmad et al., 2019; Irvine & Ryan, 2019).

Market competition has risen in the higher education sector around the globe, significantly reshaping activities in the realm. HEIs have opted for the prioritization of financial sustainability via deregulation in England (Hickey, 2024). Encouraged entrepreneurial behavior and partial autonomy have been the result of reforms in higher education since 1998 in Malaysia, which has been further supported by the Malaysian

Education Blueprint 2015-2025 (Jaafar et al., 2023). Although Portuguese universities have struggled with structural inertia and cultural rigidity, they are also trying to align with the needs of the global competition in higher education (Koryakina et al., 2015).

The higher education sector is not immune to external shocks like pandemics and wars. Heavily tuition-reliant Australian universities faced economic turmoil due to plummeting student admissions during the COVID-19 period (Thatcher et al., 2020). In the same manner, Ukrainian universities had to adopt hybrid financing tools to mitigate the fiscal loss that resulted from damaged infrastructure and war-linked budget downfall (Yurchyshena et al., 2024). Moreover, in these uncertain times, more universities are utilizing strategies in line with resource dependence theory, which encourages HEIs to diversify their income to reduce dependence on volatile sources outside the institution (Ortagus & Yang, 2018; Ismail et al., 2019). For instance, in a particular case in the United States (Ortagus & Yang, 2018), a university increased online offerings to offset falling state contributions, and some Malaysian universities also sought revenue diversification initiatives depending on their institutional capacity and diversification's perceived advantages (Ismail et al., 2019).

**Table 2.** All selected articles

| Journal | Title | Authors | Citations |
|---|---|---|---|
| *International Journal of Educational Management* | Teaching and technology transfer as alternative revenue streams: A primer on the potential legal implications for UK universities | Van Hoorebeek, M., Marson, J. | 5 |
| *Research in Higher Education* | State Spending on Higher Education Capital Outlays | Delaney, J. A., Doyle, W. R. | 52 |
| *European Journal of Higher Education* | Third mission activities: university managers' perceptions on existing barriers | Koryakina, T., Sarrico, C. S., Teixeira, P. N. | 42 |
| *Research in Higher Education* | An Examination of the Influence of Decreases in State Appropriations on Online Enrollment at Public Universities | Ortagus, J. C., Yang, L. | 58 |
| *Journal of Extension* | Creating and implementing diverse development strategies to Support Extension centers and programs | Page, C. S., Kern, M. A. | 5 |
| *International Journal of Educational Management* | Financial sustainability of Malaysian public universities: officers' perceptions | Nik Ahmad, N. N., Ismail, S., Siraj, S. A. | 43 |
| *Management and Accounting Review* | Readiness to Implement Revenue Diversification Strategies by Malaysian Public Universities | Ismail, S., Nik Ahmad, N. N., Siraj, S. A. | 4 |

| | | | |
|---|---|---|---|
| *Accounting, Auditing and Accountability Journal* | The financial health of Australian universities: policy implications in a changing environment | Irvine, H., Ryan, C. | 41 |
| *Perspectives: Policy and Practice in Higher Education* | How vulnerable are you? Assessing the financial health of England's universities | Garland, M. | 30 |
| *Journal of Risk and Financial Management* | Predicting the Impact of COVID-19 on Australian Universities | Thatcher, A., Zhang, M., Todoroski, H., Chau, A., Wang, J., Liang, G. | 142 |
| *International Journal of Educational Organization and Leadership* | UK IBCs' Adaptability in Mainland China: Programs, Practices, and Policies | Scott, T. | 4 |
| *European Journal of Education* | Challenges for higher education in the United States: The cost problem and a comparison of remedies | Brint, S. | 19 |
| *Higher Education Policy* | Does Revenue Diversification Strategy Affect the Financial Sustainability of Malaysian Public Universities? A Panel Data Analysis | Jaafar, J. A., Latiff, A. R. A., Daud, Z. M., Osman, M. N. H. | 40 |
| *Oxford Review of Education* | Financial sustainability in a marketised and partially autonomous environment: the case of small new public universities in England | Hickey, R. | 2 |
| *Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu* | PREREQUISITES OF HYBRIDIZATION OF UNIVERSITY FINANCING AS A TOOL FOR ENSURING SUSTAINABILITY AND STRATEGIC DEVELOPMENT | Yurchyshena, L., Dluhopolskyi, O., Vechirko, I., Kozlovskyi, S., Lavrov, R. | 12 |

**Source:** Authors' elaboration

### 4.2. Strategic Approaches and Diverse Revenue Streams

Innovative tuition fee policies are becoming widespread to accommodate reduced government funding in many parts of the world. Many higher education institutions in the United States have increased the quota for international students to strengthen their finances (Brint, 2022). Nonetheless, some institutions in the UK have faced the issue of low tuition income because student fees are capped (Hickey, 2024). Similarly, hikes in tuition fees in Malaysian universities also face challenges in the form of political and social resistance, limiting the tuition strategy (Nik Ahmad et al., 2019). On the other hand, in some universities in Australia and the UK, the management is utilizing international student tuition as one of the prime sources of income (Thatcher et al., 2020; Hickey, 2024), though, according to Thatcher et al. (2020), an over reliance on any single source of income can pose a threat to the financial sustainability in the long run, as visible in the Covid-19 pandemic period.

Many HEIs are turning towards increasing their income through research grants and commercialisation of technology transfer, licensing, and patenting activities. According to Brint (2022), from the 1980s to the 2010s, there has been a surge in private sector collaborations and research backed by federal funds. To exploit intellectual property, higher education institutions in Malaysia and the UK have established offices and business incubator centers for technology transfer and entrepreneurship (Van Hoorebeek & Marson, 2005; Jaafar et al., 2023). In Ukraine, similar initiatives are being undertaken as “active-intellectual” and “active-innovative” hybrid tools of funding based on the research output of the faculty. These universities are blending the traditional and entrepreneurial elements, like conferences and grants, crowdfunding, and startups, to maintain the competition both on local and international levels (Yurchyshena et al., 2024). Having said that, institutions involved in this type of alternative income generation must be prepared to tackle legal and ethical challenges, which may come in the form of brand image and litigation risks (Van Hoorebeek & Marson, 2005).

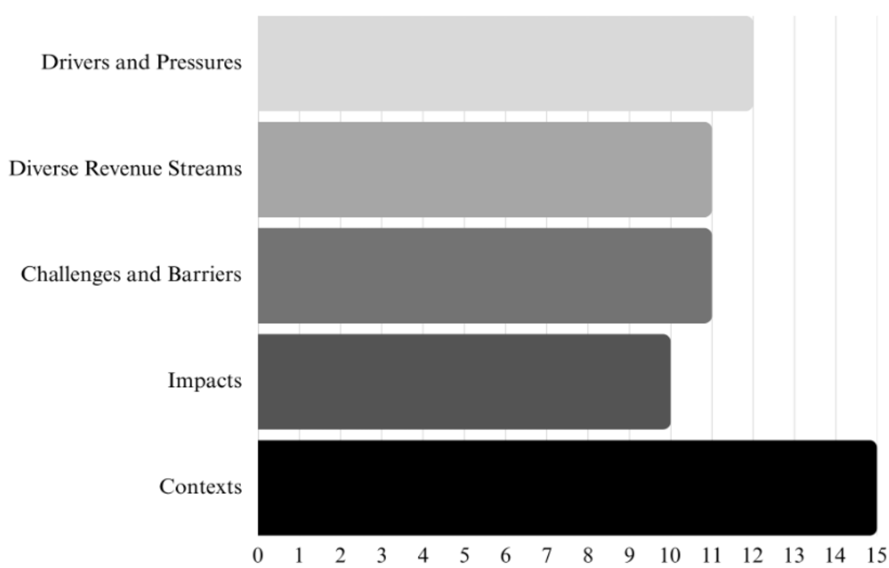
According to Brint (2022), in countries like the United States, where institutions had approximately 50 billion US Dollars in private donations in only the year 2020, philanthropy is an essential pillar of income diversification. Jaafar et al. (2023) say that universities in Malaysia also utilize Islamic Waqf instruments and endowment funds as alternative sources of income. Depending on institutional trust and image, HEIs in Ukraine receive donations as a part of “passive” hybrid financing tools (Yurchyshena et al., 2024). To supplement Public funding, some Extension Programs in the US have entered into private sector partnerships and enhanced their donor campaigns (Page & Kern, 2018). Although philanthropy remains an essential part of higher education funding, it is still concentrated in some highly exclusive institutions, making it a difficult tool to access depending on the principles of equality (Brint, 2022).

Online education has emerged as another popular source of income diversification in many countries, including the United States. Some US public universities increased the number of online programs to cover the revenue shortage resulting from reduced state support (Ortagus & Yang, 2018). In Malaysia, universities provide lifelong learning programs and executive Education to earn through alternative sources (Nik Ahmad et al., 2019). In the UK, continuing professional development courses and online learning have even reached the non-traditional learners, increasing and proving the effectiveness of these modern means (Hickey, 2024). However, the use of these influential methods of teaching may challenge the quality of instruction and pose the mission drift risk (Page & Kern, 2018; Nik Ahmad et al., 2019).

Some higher education institutions have sought to leverage existing campus facilities and assets for alternative income generation. As a part of their strategic plan, some Malaysian universities have turned underutilized campus spaces into monetized places for service generation and have commercialized academic services (Nik Ahmad et al., 2019). This move also reflects that the institutional infrastructure has the ability to serve both academic and commercial needs of the society, providing simultaneous economic benefits to HEIs. Notwithstanding the influential nature of these advanced income diversification strategies, they require an intricate level of managerial skills and innovative business competencies to succeed (Ismail et al., 2019).

Business ventures and corporate alliances are key for growth in the higher education sector. Corporate alliances and spin-offs have been efficiently utilized by some Malaysian universities to generate extra alternative revenue (Jaafar et al., 2023). In the UK, university partnerships cover a variety of collaborations, including agreements with professional sports clubs and collaborative medical programs with other prominent research-intensive HEIs (Hickey, 2024). To avoid legal complications, UK international branch campuses in China engage in local partnerships (Scott, 2021). These initiatives have a great degree of alternative income generation capacity, which must be governed carefully to avoid compromising academic autonomy.

**Figure 4.** Number of articles classified as specific codes




**Source:** Authors' elaboration

**4.3. Practical Diversification Challenges and Barriers**

Limited institutional autonomy is one of the significant challenges to university income diversification. Centrally regulated small new public universities in the UK must bear the restrictions on staff compensation, pension contribution, and tuition pricing

(Hickey, 2024). Portuguese universities have to endure similar issues in the form of rigid salary structures and career growth regulations, which hinder universities from adopting "third mission" or commercial initiatives for alternate income generation (Koryakina et al., 2015). This situation creates a dilemma that forces universities to be financially independent without providing them full autonomy in pursuing their financial plans.

The complex nature of the regulatory framework challenges the efficient use of resources and obstructs agility in higher education institutions. Apart from the large ones, smaller institutions in the UK are adversely impacted by the compulsory compliance of OfS (Office for Students) regulations (Hickey, 2024). Harsh regulations emerging from mandatory Sino-foreign partnerships make UK universities' international branch campuses (IBCs) transfer more power to the local entities, hindering those HEIs' autonomous financial pursuits (Scott, 2021). In Ukraine, inefficient hybrid financing implementation results from unclear commercial protocols and bureaucratic red tape (Yurchyshena et al., 2024). These issues often underutilize the academic and entrepreneurial skills of the staff and lead to unexpected delays in operations.

Lack of entrepreneurial mindset and internal cultural resistance are a few of the other major impediments affecting HEIs. The staff in Portuguese universities are deeply entrenched in old academic traditions and possess a low entrepreneurial orientation, which reduces their motivation to support alternative income generation (Koryakina et al., 2015). In Malaysia, senior officers generally scored low regarding faculty engagement, financial literacy, sector awareness, and financial restructuring (Nik Ahmad et al., 2019). Additionally, external collaborations often witness a mismatch between an institution's commercial aspirations and academic values (Ismail et al., 2019). Some solutions to ease the above-mentioned tensions are readiness to change in culture, revenue consciousness, and innovative incentives.

Lack of flexibility in personnel cost management increases the burden of the largest expenditure category in most HEIs. In the UK, high pension contributions and fixed staff salaries are the main highlights in university budgets (Garland, 2020). To maintain the institutional brand, UK IBCs in China have to hire international faculty at high costs, adding to the high personnel costs (Scott, 2021). Due to unrewarding career structures, Portuguese universities generally fail to utilize third mission activities and worsen their financial load of salaries and wages (Koryakina et al., 2015). In Malaysia, to maintain quality and high motivation, officers often behave against staffing reductions, resulting in a rigid personnel cost management system (Nik Ahmad et al., 2019). If personnel management costs are not handled effectively, the sole focus on cost-cutting may lead to Union friction, higher staff turnover, and a reduction in service quality.

Aggressive commercialization of academic activities has created brand damage issues and some legal complications in the UK (Van Hoorebeek & Marson, 2005). Similarly, the quality of education and student experience are at stake with online education gaining prominence (Ortagus & Yang, 2018; Page & Kern, 2018). To maintain the instruction quality, Malaysian University offices are strictly against policies like combining classes or increasing teaching hours (Nik Ahmad et al., 2019). In Australia, overemphasis on international student revenue has been seen as a revenue stream that may result in quality degradation (Thatcher et al., 2020). Furthermore, the lifting of student caps has created a throat-cutting competition in the UK, making elite universities enter the market area previously only served by smaller universities, which has exponentially raised the marketing and student recruitment costs (Hickey, 2024). Such competition has forced Australian universities to rally for a costly differentiation race and adoption of duplicate programs (Thatcher et al., 2020). Therefore, diversification initiatives should be managed carefully so that they do not threaten the established academic standards.

### 4.4. Impacts of Diversification on Higher Education Institutions

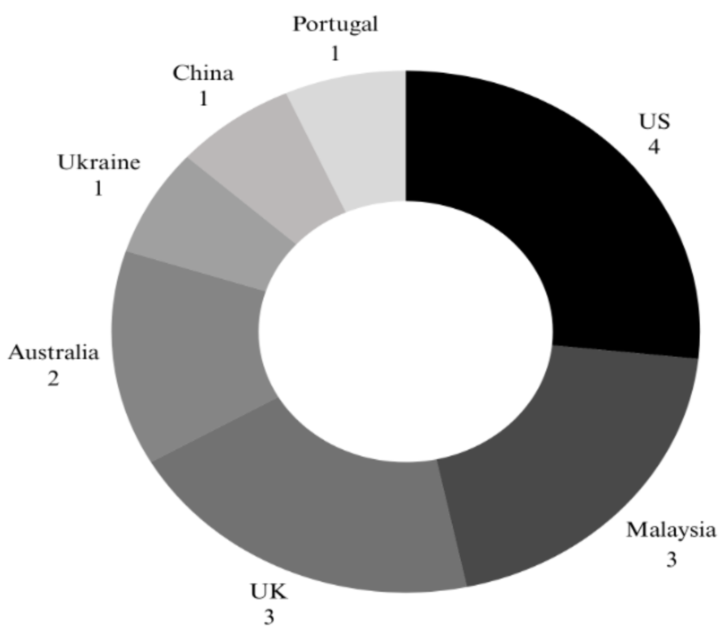
Revenue diversification strategies directly impact the financial sustainability and resilience of HEIs. As studies from Malaysia and Australia suggest, when measured through the return on assets (ROA) ratio, diversification is positively related to the financial viability of institutions and according to Irvin and Ryan, universities with higher reserve building capacity in Australia proved to be economically robust, even in economic crises, specifically due to the buffer effects of diversification against shocks from external factors. Nevertheless, some Malaysian universities have disclosed a vehicle relationship between diversification and financial performance when looking through the net profit margin (NPM) lens.

Financial efficiency may have crucial consequences for university employment. Australian universities had to face large-scale job losses in the COVID-19 pandemic, which disproportionately affected the contract staff, who were also ineligible for support from government bodies (Thatcher et al., 2020). Although it may lead to ethical and workload concerns in the UK, institutions try to achieve budget flexibility by using zero hours and fixed-term contracts (Garland, 2020). On the other hand, there is a high preference for service quality and improved morale in Malaysian universities, making them employ candidates permanently, even if it is at high costs (Nik Ahmad et al., 2019). Thus, strong safeguards need to be implemented to avoid implementing diversification initiatives at the cost of staff welfare.

Shifts in governance structures, improved managerialism, and enhanced strategic planning are often among the prerequisites for successful revenue diversification. Institutions with financial burdens are advised to behave as “organizational actors” that have central control, defined goals, and performance metrics (Hickey, 2024). According to Nik Ahmad et al. (2019), in Malaysia, the corporatization of education has created clashes between the traditional academic norms and entrepreneurial aspirations. Although this change has positively impacted the financial efficiency of institutions, it poses a threat to collegiality in universities; hence, to maintain internal balance, effective leadership is required that can demonstrate inclusive and transparent decision-making, along with business-like operations.

Vulnerability reduction and risk mitigation are two of the core impacts of a successful diversification. According to Garland (2020), improved institutional resilience depends on a balanced set of revenue resources. It is also visible in the case of pre-1992 UK universities, which had relatively stable financial conditions because of better diversification. Conversely, high dependence on any one income source, such as the dependence of Australian universities on international student tuition (Thatcher et al., 2020), makes HEIs vulnerable in cases of external uncertainties. These findings reiterate the positive effects of increasing the variety of income streams on the robustness of the financial system.

**Figure 5.** Number of articles per geographical context




**Source:** Author's elaboration

### 4.5. Diversification Contexts: Geographical and Institutional

Declining state funding and rising cost of tuition have long affected the US higher education scenario drastically. According to Brint (2022), the increased cost burden driven by competitive talent pressures and administrative expansions has added to the financial agony that emerged after public funding cuts. The United States has a history of volatile capital outlays in the higher education sector due to political and economic upheavals (Delaney & Doyle, 2014). To find solutions, HEIs have turned to diversification options like increasing online education courses (Ortagus & Yang, 2018) and tapping philanthropy opportunities (Page & Kern, 2018) to remain competitive both nationally and internationally. These showcase the university's structural reliance on diversification strategies in the United States.

Although the UK higher education sector is highly marketized, it is also strictly regulated. Capped tuition policy and declining Public funding have been some of the looming challenges for financial sustainability in UK HEIs (Hickey, 2024). Additionally, smaller institutions in the UK are facing intensified competitive pressure because they lack the autonomy in setting prices and have to operate according to the rigid cost system (Garland, 2020; Hickey, 2024). Van Hoorebeek and Marson (2005) purport that, to avoid challenges like those aforementioned, universities may adopt policies of diversified academic offerings, internationalization, and enhanced strategic partnerships. While doing so, some legal and reputational risks have emerged, which need an urgent redressal to maintain the viability of diversification operations.

Since the 1998 corporatization reforms, the HEIs in Malaysia have experienced immense transformations. Entrepreneurial aspirations have emerged after the significant drop in the state funding from 90% to 70% of the total operational costs (Jaafar et al., 2023). According to Nik Ahmad et al. (2019), there is a positive link between diversification and financial sustainability, particularly in more mature Malaysian HEIs. Establishing lifelong learning programs and using campus assets for generating monetary value have been the most relied-upon diversification strategies (Ismail et al., 2019). However, internal capacity, perceived value, the availability of resources (Ismail et al., 2019), academic quality concerns, and cultural resistance (Nik Ahmad et al., 2019) are the factors that decide the institutional readiness to implement diversification.

Australia's reliance on a revenue model concentrated predominantly on international tuition exposed its vulnerable financial circumstances during the COVID-19 period, resulting in a loss of approximately 19 billion US Dollars (Thatcher et al., 2020). Although some higher education institutions had initiated reserve building and alternative financing before the onset of the pandemic, many institutions still faced drastic backlash. Despite post-crisis accelerated diversification, planning, long-standing structural issues like increased operational costs continue to haunt HEIs (Irvine & Ryan, 2019). Briefly, more diversified institutions were better equipped to face the unexpected, bolstering the crucial nature of varied portfolios.

Due to war-related destruction, systemic underfunding, and inflation, Ukrainian higher education institutions find themselves in one of the harshest Financial spirals. The Ukrainian public universities rarely utilize diversification strategies and are heavily reliant on public appropriation and private tuition resources. However, some universities have adopted an innovative hybrid financing policy that includes reputation-based earnings, earnings from scientific projects and grounds, and income from crowdfunding and startups (Yurchyshena et al., 2024). This reflects how crises like war can direct institutions to adopt radical innovation, revolutionizing the financing system and having both short-term and long-term positive impacts.

UK IBCs in China must form joint ventures with their Chinese partners to operate in the country, adhering to a highly restrictive legal environment. This puts those institutions in a "duality dilemma" where they have to remain honest to the UK academic standards and simultaneously follow the local regulations limiting their financial pursuits. In other words, the costly recruitment of international faculty and the skepticism arising from overwhelming local control negatively reflect on the financial performance of such institutions (Scott, 2021). In this unique and complicated case of IBCs, we witness that even internationalization is not an outward solution to the challenges posed against diversification.

Lastly, the case of Portuguese universities highlights economic austerity and ongoing governance reforms to achieve financial sustainability. Nonetheless, due to internal and external barriers, even the policy support for third mission initiatives appears to be failing. While external challenges like unclear policy on public-private partnerships deteriorate industry cooperation, internal issues like weak entrepreneurial culture, rigid career paths, and a shortage of expert staff lower the chances of successful diversification (Koryakina et al., 2015). This Portuguese scenario explains that the results of policy formation remain ineffective until the attainment of successful institutional change.

**Table 3.** Summary of Emerging Themes and Sub-Themes

| Main Theme | Sub-Theme | Key Concepts/Indicators |
|---|---|---|
| ***Drivers and Pressures for Revenue Diversification*** | Declining Government Funding and Fiscal Austerity | Budget cuts, NPM, real-term reductions, balance wheel |
| | Rising Costs of Higher Education and Massification | Administrative growth, competitive salaries, pension costs, and increased enrollment |
| | Marketization and New Public Management (NPM) Ideologies | Business-like operations, entrepreneurial mindset, and corporatization |
| | External Shocks (e.g., COVID-19) | Pandemic impact, over-dependence on single revenue streams, accelerated need for diversification |
| | Theoretical Underpinnings (Resource Dependency Theory) | Minimizing dependency, strategic autonomy, and long-term viability |

| | | |
|---|---|---|
| ***Diverse Revenue Streams and Strategic Approaches*** | Tuition Fees (Domestic and International Students) | Tuition increases, international student recruitment, and fee caps |
| | Research Grants and Commercialization (Technology Transfer, IP Licensing) | Patenting, business incubators, IP exploitation, ethical/legal risks |
| | Philanthropy, Endowments, and Fundraising | Private donations, waqf, fundraising campaigns, skewed giving |
| | Online Education and Lifelong Learning Programs | Economies of scale, new markets, short courses, and quality concerns |
| | Asset Monetization, Retailing, and Services | Full resource utilization, commercializing services, and physical assets |
| | Corporate Alliances and Business Ventures | Industry collaboration, spin-out companies, inter-institutional partnerships |
| | Hybrid Financing Models (e.g., Ukraine) | Passive/image-based, active-intellectual, active-innovative, crisis-driven |
| ***Challenges and Barriers to Effective Diversification*** | Limited Institutional Autonomy | Fee caps, rigid salary structures, external pension control, governance constraints |
| | Regulatory Burdens and Bureaucracy | Compliance costs, reporting requirements, slow processes, and foreign partnership mandates |
| | Internal Cultural Resistance and Lack of Entrepreneurial Mindset | Academic traditionalism, financial literacy gaps, mismatch of expectations, and path dependencies |
| | Staffing Issues | High fixed costs (salaries, pensions), non-standard contracts, career assessment, workload demands |
| | Quality vs. Cost Trade-offs | Mission drift, "diploma mill" risk, academic standards, student experience |
| | Market Competition and Saturation | Shrinking student pools, "strong get stronger," increased marketing costs, duplication |
| ***Impacts of Diversification on Financial Health and Institutional Dynamics*** | Financial Sustainability, Viability, and Resilience | ROA, NPM, surplus, liquidity, reserves, risk reduction |
| | Academic Quality and Standards | Mission alignment, reputational risk, curriculum changes, faculty focus |
| | Employment and Staff Welfare | Job losses, non-standard contracts, morale, workload |
| | Governance and Decision-Making | Managerialism, centralization, flexibility, internal friction |

| | | |
|---|---|---|
| | Risk Mitigation and Vulnerability Reduction | HHI, portfolio balance, resilience to shocks |
| ***Geographical and Institutional Contexts of Diversification*** | United States | Cost problem, student debt, capital outlay volatility, online education growth |
| | United Kingdom | Marketization, limited autonomy, rising costs, program diversification, internationalization, partnerships, legal risks |
| | Malaysia | Declining government funding, corporatization, entrepreneurial activities, readiness factors, officer perceptions |
| | Australia | Budget austerity, international student dependence, COVID-19 impact, expense growth, debt, reserves |
| | Ukraine | Wartime challenges, budget underfunding, high inflation, low diversification, and hybrid financing innovation |
| | China (for UK IBCs) | Regulatory control, partnership mandates, localization vs. homogenization, faculty costs, student resistance |
| | Portugal | Financial austerity, governance reform, internal/external barriers, career structure, cultural issues |

**Source:** Authors' elaboration

## 5. Discussion

### 5.1. Key Findings: Synthesis

This systematic review finds that higher education institutions exist within a complicated adaptive realm influenced by rising operational costs, constantly declining Public funding, and internal constraints (Jaafar et al., 2023; Brint, 2022; Garland, 2020). In response, HEIs follow varied income diversification strategies spanning activities like industry and business partnerships, research commercialization, and increased reliance on tuition (particularly international students) (Brint, 2022; Ortagus & Yang, 2018). Notwithstanding the adoption of diversification policies, alternative income generation is often hindered by regulatory barriers, cultural resistance to entrepreneurial aspirations, and limited institutional autonomy (Hickey, 2024; Koryakina et al., 2015). In an interesting case of a South African university, low research output may also act as a hindrance to income diversification (Ngcobo et al., 2024).

According to Ismail et al. (2019) and Garland (2020), cultural misalignment within the higher education system, emerging from traditional entrenchments and rigid structures of staff, leads to limited financial autonomy. The diversification strategies adopted by universities may render varied outcomes depending on the contexts (Jaafar et al., 2023; Garland, 2020). Thatcher et al. (2020) and Welch (2022) highlighted the negative impact of crises like the COVID-19 pandemic, drastically affecting international student enrollments in Australia, financially hurting the practice of overreliance on international students' tuition.

Finally, HEIs' identity and governance are shaped by revenue diversification strategies, which push these institutions to have more goal-oriented and centralized structures (Hickey, 2024; Nik Ahmad et al., 2019). Similarly, Norwegian HEIs adopted a more centralized governance style by choosing mergers as one of the revenue diversification strategies (Frølich et al., 2016). Like in many other countries, Malaysian universities also have to face the challenge of maintaining the balance between following the government's higher education regulations and having to emerge self-reliant economically at the same time (Jaafar et al., 2023; Nik Ahmad et al., 2019). So, a successful strategy is one that can leverage both the internal leadership capacity and the external enablers.

**5.2. Implications for Higher Education institutions: For Managers**

Diversification should be chosen as a long-term solution rather than a short-term fix by integrating factors such as opportunity seeking, risk management, and adoption of entrepreneurial culture, while keeping the academic values intact (Ismail et al., 2019; Brint, 2022; Van Hoorebeek & Marson, 2005). Furthermore, low autonomy over key institutional elements like staffing, pension, and tuition reduces operational flexibility, forcing leaders and managers to demand better institutional independence in an accountable manner (Hickey, 2024; Koryakina et al., 2015). University members resist commercial engagements when they are not rewarding, so HEIs should invest more in awareness, a revised incentive system, and training (Nik Ahmad et al., 2019; Koryakina et al., 2015). As seen in the Australian case during the COVID-19 pandemic, efficient risk management is crucial, especially against over-reliance on any single stream of revenue (Thatcher et al., 2020). Universities need to mobilize underused and idle resources, including digital tools, staff expertise, and infrastructure, to develop alternative income via high-quality services such as consulting, scalable online programs, and continuing education programs (Page & Kern, 2018; Ortagus & Yang, 2018; Scott, 2021). If correctly aligned with institutional missions, strategic alliances with industry and other partners may lead to enhanced revenue generation and improved innovation drives, reducing the reputational risks to a minimum level (Jaafar et al., 2023; Hickey, 2024; Van Hoorebeek & Marson, 2005). Lastly, institutions must carefully plan the cost cuttings in a sensitive and transparent manner to maintain the morale of their staff and improve trust within the institution (Nik Ahmad et al., 2019; Garland, 2020).

**5.3. Policy Implications: For Government and Regulatory Bodies**

Supportive policy frameworks and reforms in the higher education system are needed to intensify revenue diversification schemes. Instead of reducing public funding in a constant manner, governments should employ stable funding models spread across many years to facilitate long-term planning and reduction in volatility (Brint, 2022; Jaafar et al., 2023). It is also crucial to empower higher education institutions regarding autonomy over staffing, tuition, and other resources, especially when performance accountability is in action (Hickey, 2024; Nik Ahmad et al., 2019). To boost innovation and agility in third mission and international engagements, rigid regulations must be streamlined (Scott, 2021; Yurchyshena et al., 2024). A wise public investment should be pursued that can prioritize capacity-building infrastructure, such as entrepreneurial offices and digital platforms, to tap diversification prowess (Page & Kern, 2018). Metrics like Hirschman-Herfindahl Index (HHI) must be integrated into national assessment systems by policymakers to screen better systemic risk and financial concentration (Garland, 2020). Finally, an equitable diversification drive must be pursued, so that it can reduce ever-increasing gaps between institutions and take special care of underrepresented HEIs (Brint, 2022; Thatcher et al., 2020).

### 5.4. Future Research Directions and Limitations

While this review is a comprehensive one, it is still limited by a small sample size of 15 studies, along with the underrepresentation of specific regions like sub-Saharan Africa and Latin America, making it weak in terms of global generalisability. Furthermore, apart from a few studies relying on econometric or longitudinal analyses (Nik Ahmad et al., 2019; Brint, 2022), much of the included research is based on subjective perspectives. To ascertain the sustained effects of diversification, future studies should choose large-scale and long-term quantitative research, broader stakeholder perspectives, and/or cross-contextual comparisons. While the selection of the available literature was done through a choice of keyword entries, to save time and effort, only peer-reviewed articles were included, leaving other sources such as books and doctoral dissertations related to the field. Finally, a deeper exploration of emerging innovative tools such as artificial intelligence and other digital platforms may render interesting and useful trends in the field of diversification in higher education.

## 6. Conclusion

To conclude, rising education costs, market-oriented governance, and declining Public funding are pushing the higher education sector to undergo a structural transformation, making the adoption of diversification strategies a necessity (Brint, 2022; Hickey, 2024). This study reveals that although HEIs adopted various strategies of diversification, ranging from research commercialization, online expansion, to tuition hikes, these actions often faced obstructions due to regulatory burdens, cultural resistance, and limited autonomy (Ortagus & Yang, 2018; Nik Ahmad et al., 2019). In addition, diversification can only succeed efficiently when it is coupled with the maintenance of academic integrity and equity (Garland, 2020; Thatcher et al., 2020). Its success also depends on strong leadership, alignment with core academic values, and context-aware implementation of alternative income initiatives. While the governments need to make these institutions more autonomous to pursue responsible innovation, institutions also need to strike a balance between their central missions and the development of entrepreneurial capacity. Thus, to achieve the optimum societal and institutional outcomes, a balanced approach with proactive responsibility sharing is essential.

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