Journal of Informatics Education and Research
ISSN: 1526-4726
Vol 5 Issue 3 (2025)

Growth and Financing Dynamics of Higher Education: Evidence from India and Saudi Arabia

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Abstract

Higher education financing is crucial for promoting human capital development and economic growth. India and Saudi Arabia, despite their contrasting economic structures, have adopted distinct financing models. India follows a mixed system emphasizing access, affordability, and equity through public–private participation, while Saudi Arabia relies heavily on state funding supported by oil revenues. This study, based on secondary data from national and international sources, compares the trends, structures, and policy mechanisms of higher education financing in both countries. Findings reveal that India's financing is increasingly diversified through privatization and equity-focused measures, whereas Saudi Arabia's Vision 2030 seeks to expand private participation and reduce dependence on public expenditure. Both nations have achieved notable progress in enrolment and gender parity, but continue to face challenges related to sustainability, quality, and employability. The study highlights the need for diversified, equitable, and sustainable financing models to strengthen higher education systems.

Keywords: Higher Education, Growth, Financing, Policy Dynamics, India, Saudi Arabia.

1. Introduction

In addition to affecting the availability and quality of higher education, funding for this sector of the economy has a direct impact on a country's capacity to spur innovation, economic growth, and social advancement. The problem of how to pay for college is critical in countries as different as India and Saudi Arabia. Each country's economic, cultural, and historical circumstances mean that it funds higher education in a somewhat different way than the other (Pavel, et al., 2013). India's massive and varied higher education system struggles to meet the needs of a large and varied student body. Higher education in India is supported by a variety of sources, including public and private grants and loans, as well as student and family donations. Careful management of this intricate financial system ensures that higher education is within reach for a wide spectrum of students throughout the nation (Altbach et al., 2019).
In contrast, the oil-rich monarchy of Saudi Arabia has historically depended on extensive public funding to provide citizens with free access to higher education (Ryan, 2023). State- sponsored scholarship schemes such as the King Abdullah Scholarship Program have enabled thousands of Saudis to study at leading universities around the world at no direct cost to the students (Hall, 2013; Hilal, 2015). More recently, however, the imperative to diversify the economy and reduce reliance on oil revenues has driven major reforms in higher-education financing under

Vision 2030 reforms that emphasize funding diversification, private-sector engagement, and greater investment in research and human capital (Mohiuddin et al., 2023; Abdullateef, Musa Alsheikh, & Khalifa Ibrahim Mohammed, 2023; Kingdom of Saudi Arabia, 2021).

This introductory section lays the groundwork for an in-depth examination of how India and Saudi Arabia finance their higher education systems, highlighting the diverse processes, policy mechanisms, and challenges faced by both countries in their pursuit of educational excellence. In India, the financing of higher education has been the subject of extensive scholarly discussion, emphasizing issues of access, equity, and sustainability within public and private funding structures (Tilak, 1993; Jahan & Selvarani, 2015; Gupta, 2018). These studies collectively underscore the need for efficient financial planning and policy reforms to ensure quality and inclusivity in higher education. Investment in higher education pays dividends in the form of increased productivity, new ideas, and personal growth. Knowledge, skills, critical thinking, and creativity are all bolstered by a robust higher education sector. The innovation and technical advancement that it spurs are essential to the success of the knowledge-based economy that will define the 21st century (OECD 2016 and Alic 1997). Providing sufficient funding for higher education is crucial for two reasons. All people, regardless of their family's financial situation, should have the opportunity to seek higher education. At the same time, quality assurance systems are essential for turning out graduates who can compete in today's job market and advance the country's progress (Mok & Jiang, 2018). Governments in both India and Saudi Arabia must strike a balance between these competing priorities as their countries' educational and economic systems develop and change. Globalization, technological advancements, and changes in the workforce all need innovative approaches to public finance if these countries are to meet the requirements of their citizens (Rizvi, Lingard & Rinne, 2022). India hosts over a thousand universities, each with distinct missions and areas of specialization, catering to a multilingual and multicultural student population drawn from diverse geographic and socioeconomic backgrounds. The country’s complex higher education financing framework reflects its ongoing commitment to expanding equitable access to quality education (AISHE, 2023; UGC, 2022).

Higher education in India is heavily reliant on government support. Both the federal and state governments provide generous funding for higher education. About 3% of India's GDP was allotted to education in the Union Budget for 2021-22, with a significant share going toward Higher education. However, this money comes from a variety of sources and must be managed carefully (Saudi Arabia Vision 2030, 2016). The government alone does not finance higher education in India. The growing number of private and for-profit institutions has diversified opportunities for students seeking higher education. Additionally, public and private scholarship and financial aid programs play an essential role in supporting students from low-income backgrounds (Srivastava, 2014; Ministry of Education, 2025). Additionally, India has adopted novel financing structures, like as income-contingent loans, which help students fund their education by factoring in their expected future income. These systems are designed to help students and their families deal with the costs associated with higher education (Chapman & Lounkaew, 2016).

Affirmative action policies and funding programs aim to provide underrepresented groups a fair shot at a college degree. The reservation system, which sets aside a percentage of university enrolment for members of the Scheduled Castes, Scheduled Tribes, and Other Backward Classes, is a prime example of India's dedication to diversity and inclusion (Al- Eisa & Smith

2013, Vardhan 2015). Funding for research and collaborations with foreign universities has taken centre stage in India's efforts to improve the standard of its higher education system. The academic and scientific prowess of a nation benefits from collaborative research initiatives, faculty exchanges, and transfers of technology. Due to its dependence on public financing, Saudi Arabia now provides its residents with free access to postsecondary institutions. Saudi students have benefited greatly from the King Abdullah Scholarship Program, which provides financial support so that they may attend top universities abroad. Thousands of pupils have benefited from this initiative, which has had a significant impact on the educational landscape of the nation (Taylor & Albasri, 2014).

However, the higher education funding environment is experiencing a fundamental upheaval as Saudi Arabia attempts to diversify its economy and lessen its dependency on oil. Public-private partnerships and international investment promotion are high on the government's agenda. Aligning with the larger Vision 2030 strategy, which calls for a knowledge-based economy and a highly qualified workforce, this change is occurring (Bridges & Walls, 2018). Saudi Arabia is promoting private sector involvement in higher education in addition to existing financing channels. Key actors in the area include private universities and colleges that work with international organizations. These schools use student fees and private funding to adapt their curriculum to the needs of an ever-changing labour market. (Verger et al., 2019).

Scholarship programs remain an important source of funding for Saudi Arabia's higher education sector, but there is increasing pressure to make sure they support the country's broader economic diversification objectives. Now more than ever, the scientific, technological, engineering, and mathematical (STEM) professions are being actively encouraged via the provision of scholarships (Molesworth, Nixon & Scullion 2011). Investments in research infrastructure, technological transfer, and knowledge-based programs have also significantly impacted the research scene in Saudi Arabia. Because of its importance to the economy's long-term health, the government is very interested in encouraging innovation and entrepreneurship (Thipperudrappa & Dhananjaya, 2018).

2. Review of Literature

In the Indian context, Varghese and Panigrahi (2023) emphasized that while public investment in higher education is essential for promoting equity and efficiency, it has not kept pace with the growing demand. This imbalance has encouraged privatization and cost- sharing measures, transferring financial responsibility from the state to households and increasing the need for student support systems to safeguard equity and social justice. Similarly, Gandhi and Ahir (2022) analyzed the trend of privatization between 2010 and 2020 and revealed that although government spending on higher education rose in absolute terms, its share of GDP declined. During this period, enrolment in private institutions increased substantially, whereas participation in public institutions stagnated, underscoring the widening access gap. Varghese (2021) examined India’s transition from state-funded to market-oriented higher education, where growing reliance on student loans and private financing mechanisms reflected the inadequacy of public funding. Rising loan defaults and graduate unemployment added strain to the financial system, prompting the government to introduce fellowships and fee reimbursement schemes to sustain access and equity. Chinara and Rout (2016) emphasize higher education as a key driver of economic growth requiring balanced public and private investment. They note that reduced state funding and market- oriented reforms have created

inequities in developing nations. The authors call for innovative financing models and stronger private sector participation to achieve global educational goals. Rogers (1971) and Panigrahi (2017) also underscored inadequate public expenditure and the growing reliance on cost-sharing and alternative resource mobilization strategies, urging further evaluation of their impact on equity and institutional disparities. Rani (2016) examined the growing dependence on student loans amid privatization and rising enrolments, highlighting repayment and employability issues and calling for reforms in tuition, scholarships, and loan schemes to enhance affordability. Mitra (2015) conducted a benefit incidence analysis and revealed that subsidies in higher education disproportionately favor wealthier groups, indicating a pro-rich bias in public spending. The study emphasized the need for context-specific and equitable financing policies across states. Puttaswamaiah (2010) highlighted the growing role of educational loans in promoting human capital development and expanding access, while Chattopadhyay (2007) proposed diversified and sustainable financing mechanisms beyond traditional fee hikes and loans to ensure inclusivity. Prakash (2007) further emphasized the importance of raising public expenditure on higher education to at least 6% of GDP to enhance accessibility and reduce disparities across states and social groups.

In the Saudi Arabian context, Hamdan and Hamdan (2020) explored the mediating effect of oil revenues on the relationship between higher education investment and economic growth from 1978 to 2017. Their findings revealed that although oil wealth substantially influences education funding, its direct contribution to economic growth through higher education remains inconclusive, highlighting the need for diversification beyond resource-based revenues. Esmail (2020) also found a positive correlation between education expenditure and economic growth, but reported that R&D investment had a limited impact due to insufficient data, emphasizing the need for integrated educational and research policies. Alharbi (2016) examined challenges hindering Saudi Arabia's quest for world-class universities, including low research productivity, accreditation barriers, and quality concerns, and stressed the need for systemic reforms. Hamdan (2015) highlighted the government's large-scale investments, approximately 12% of the national budget and $22 billion annually in scholarships, to modernize the higher education system and expand access, resulting in significant enrolment growth. Dandan (2013) demonstrated a strong positive correlation between public spending, especially on higher education, and non-oil GDP growth, reinforcing the sector's importance for sustainable economic diversification. Hamdan (2013) analyzed the rapid expansion of private higher education in Saudi Arabia, identifying its role in improving access but cautioning about quality disparities and the need for broader empirical investigation. Alamri (2011) examined the structure and functioning of the Saudi higher education system with specific reference to professional and faculty development, advocating a more comprehensive analysis of the sector. Al-Mousa (2009) discussed the impact of Saudi Arabia's overseas scholarship programs, notably the Custodian of the Two Holy Mosques initiative, as an investment in human capital and national development. Earlier, Alkhazim (2003) identified financial constraints, limited institutional capacity, and weak quality assurance as key challenges, calling for deeper structural and financial reforms to ensure long-term sustainability.

Overall, the reviewed literature reveals a common theme: both India and Saudi Arabia face challenges in achieving equitable and sustainable higher education financing, albeit from contrasting positions. While India's system grapples with inadequate public funding and growing privatization, Saudi Arabia's model is heavily state-funded but dependent on volatile oil revenues. Together, these studies highlight the need for diversified, equitable, and resilient

financing strategies to strengthen higher education as a driver of inclusive socio-economic development.

3. Objectives of the Study

1. To examine the structural framework and funding patterns of higher education in both countries.
2. To analyze trends in institutional growth, enrolment, and Gross Enrolment Ratio (GER).
3. To assess gender equity and teaching capacity through the Gender Parity Index (GPI) and the Pupil–Teacher Ratio (PTR).
4. To evaluate major policy initiatives such as India's NEP 2020 and Saudi Vision 2030, which are influencing higher education financing.
5. To identify key challenges, emerging trends, and policy implications for sustainable and equitable higher education.

4. Research Methodology and Data Sources

The study adopts a comparative and descriptive analytical approach based on secondary data sourced from credible institutions such as the UGC, AISHE, UNESCO, World Bank, and SAMA, along with key policy documents including India's National Education Policy (NEP) 2020 and Saudi Vision 2030. A normative research design was employed to evaluate existing frameworks, supported by content and discourse analysis to interpret policy documents, national reports, and scholarly literature. Trend analysis was conducted by integrating quantitative indicators with qualitative policy insights to examine the evolution of higher education financing structures. The research contrasts two distinct socio-economic contexts: India, where higher education financing is a blend of government funding, private investment, and student contributions aimed at ensuring access and equity; and Saudi Arabia, where an oil-based economy has historically sustained a tuition-free public higher education system. This comparative framework offers a nuanced understanding of the mechanisms, challenges, and policy implications shaping higher education financing in both nations, underscoring their respective trajectories toward sustainability and educational equity.

5. Results

Higher education financing in India and Saudi Arabia reflects the broader socio-political and economic structures of each nation. Understanding these financing mechanisms offers valuable insights into the priorities, challenges, and developmental strategies that shape their respective higher education systems.

5.1 Trends in the Growth and Development of Higher Education in India

Table 1 highlights a steady and significant expansion in India's higher education system over the two decades, both in terms of institutional growth and student enrolment.

1. Expansion of Higher Education Institutions

The total number of higher education institutions increased remarkably across all categories. Central Universities grew from 17 (2000-01) to 56 (2021-22), reflecting government emphasis on nationwide access. State Universities rose from 172 to 460, indicating the dominant role of state governments in higher education expansion. Private Universities witnessed the most rapid growth, from only 5 in 2000-01 to 430 in 2021-22, underscoring the privatization trend in higher education. Institutes of National Importance also grew substantially—from 12 to 167—showing increasing focus on excellence and technical education. Deemed-to-be Universities fluctuated slightly, rising from 46 to 128, maintaining a moderate share of total institutions.

2. Growth in Enrolment and Access

Student enrolment increased fivefold, from 8.4 million in 2000-01 to 43.3 million in 2021-22, indicating a massive expansion in access to higher education. The Gross Enrolment Ratio (GER) rose from 9.5% to 28.4%, reflecting significant progress in participation, though still below global averages for advanced economies.

3. Key Trends and Observations

The growth post-2010 accelerated sharply, particularly due to policy reforms, expansion of private universities, and increased government initiatives such as RUSA and NEP 2020. Private sector participation has become a defining feature of India's higher education landscape. Despite rapid expansion, maintaining quality, equity, and employability remains a central challenge.

Table 1: Trends in Growth and Development of Higher Education in India: Institutions & Enrolments: 2000-01 to 2021-22

Year	Central Universities	State Universities	Deemed-to-be Universities	Institutes of National Importance	Private Universities	Total Enrolments (In Millions)	GER (In %)
2000-01	17	172	46	12	5	8.4	9.5
2001-02	18	178	52	12	4	8.9	9.6
2002-03	18	183	74	13	8	9.5	10.1
2003-04	18	190	86	13	9	10.2	10.6
2004-05	18	203	96	13	9	11.0	10.9
2005-06	20	217	102	13	10	11.5	10.7
2006-07	21	219	110	18	11	13.1	12.4
2007-08	28	222	109	33	16	14.4	13.1
2008-09	40	255	125	38	28	16.0	13.7
2009-10	40	243	130	41	53	17.2	15.0
2010-11	41	281	115	58	87	27.5	19.4
2011-12	42	286	117	59	105	29.2	20.8
2012-13	42	292	116	62	122	30.2	21.5
2013-14	42	309	116	68	153	32.3	23.0
2014-15	43	316	111	75	181	34.2	24.3
2015-16	43	329	122	75	197	34.6	24.5
2016-17	44	345	112	100	233	35.7	25.2
2017-18	45	351	113	101	262	36.6	25.8
2018-19	47	385	124	127	305	37.4	26.3
2019-20	48	386	126	135	327	38.5	27.1
2020-21	54	437	126	149	388	41.4	27.3
2021-22	56	460	128	167	430	43.3	28.4

Source: *University Grants Commission (UGC) Annual Reports of Various Years, AISHE Reports of Various Years, Ministry of Education, GOI, New Delhi.*

5.2 Gender Parity and Teaching Capacity in Indian Higher Education

Table 2 depicts the progress in gender equality and teaching capacity in India's higher education sector over the two decades from 2000–01 to 2021–22.

1. Gender Parity Index (GPI)

The Gender Parity Index (GPI) in higher education in India improved markedly from 0.72 in 2001–02 to 1.01 in 2021–22, reflecting a significant rise in female participation. The GPI surpassed 1.00 for the first time in 2017–18 and has remained at or above parity since, indicating that female enrolment now equals or slightly exceeds male enrolment. This sustained upward trend reflects the impact of government initiatives such as *Beti Bachao Beti Padhao*, *Kasturba Gandhi Balika Vidyalaya*, and targeted scholarships and reservation policies, highlighting India's progress toward gender inclusivity and women's empowerment in higher education, in alignment with SDG 4 and SDG 5.

2. Pupil–Teacher Ratio (PTR)

The PTR has fluctuated between 20 and 30 over the period, indicating moderate improvement in the student–teacher balance. While PTR was relatively high at 26 in 2003–04 and 30 in 2017–18**,** it declined to 24 by 2021–22, suggesting a gradual enhancement in teaching capacity. The variations reveal ongoing challenges in maintaining adequate faculty strength amid rising student enrolments, particularly in public universities and colleges.

3. Key Trends

India has made notable progress toward gender parity in higher education, with the Gender Parity Index (GPI) exceeding 1.00 since 2017–18, reflecting increased female participation. Government initiatives such as *Beti Bachao Beti Padhao*, *Kasturba Gandhi Balika Vidyalaya*, and targeted scholarships have strengthened women's access to higher education. The Pupil–Teacher Ratio (PTR) has improved from 30 in 2017–18 to 24 in 2021–22, indicating enhanced faculty recruitment and institutional capacity, though PTR remains above ideal levels. Overall, the trends reflect India's efforts to expand access, promote equity, and enhance the quality of higher education, aligning with SDG 4 (Quality Education) and SDG 5 (Gender Equality).

Table 2: Trends in Gender Parity Index (GPI) and Pupil–Teacher Ratio (PTR) in Higher Education in India, 2000–01 to 2021–22

Year	Gender Parity Index (GPI in Higher Education)	PTR for Regular Enrolment (University and Colleges)
2000-01	NA	24
2001-02	0.72	24
2002-03	0.73	25
2003-04	0.73	26
2004-05	0.71	22
2005-06	0.69	26
2006-07	0.69	21
2007-08	0.70	20
2008-09	0.72	21
2009-10	0.74	24
2010-11	0.86	26
2011-12	0.88	24
2012-13	0.89	24
2013-14	0.92	21
2014-15	0.92	22
2015-16	0.92	21
2016-17	0.98	25
2017-18	1.01	30

2018-19	1.05	29
2019-20	1.06	28
2020-21	1.05	24
2021-22	1.01	24

Source: *University Grants Commission (UGC) Annual Reports of Various Years, AISHE Reports of Various Years, Statistics of Higher & Technical Education.*

5.3 Trends in the Growth and Development of Higher Education in Saudi Arabia

Table 3 illustrates the steady expansion and diversification of Saudi Arabia's higher education system between 2000–01 and 2021–22, characterized by growth in universities, technical colleges, and enrolments.

1. Expansion of Higher Education Institutions

Public Universities increased from 8 in 2000–01 to 30 in 2021–22, reflecting substantial government investment in higher education infrastructure and regional universities. Private Universities grew from 2 to 15, indicating a gradual shift toward private sector participation, though the system remains predominantly public. Technical Colleges expanded until 2019–20, when data reporting shifted, showing early emphasis on vocational education and skill development. Private and Public Colleges saw considerable growth until the mid- 2010s, contributing significantly to enrolment expansion, though later data are unavailable.

2. Growth in Enrolment and Access

Student enrolments rose sharply from 0.40 million in 2000–01 to 1.97 million in 2021–22**,** representing nearly a fivefold increase over two decades. The Gross Enrolment Ratio (GER) advanced impressively from 22.3% to 71.4%, indicating substantial improvement in higher education access and participation—one of the highest in the region.

3. Key Trends and Observations

The period after 2010 marks a phase of rapid expansion driven by national reforms, such as Saudi Vision 2030**,** focusing on diversification, innovation, and knowledge-based growth. The steady rise in GER demonstrates the success of policy initiatives aimed at female education, technical training, and private sector engagement**.** While quantitative expansion is evident, challenges remain in ensuring quality assurance, employability**,** and alignment of academic programs with labour market needs.

Table 3: Trends in Growth and Development of Higher Education in Saudi Arabia: Institutions and Enrolments: 2000-01 to 2021-22

Year	Public Universities	Private Universities	Technical College	Private College	Public College	Total Enrolments (In Millions)	GER (In %)
2000-01	8	2	15	5	197	0.40	22.3
2001-02	8	2	16	6	198	0.41	23.8
2002-03	8	2	17	6	199	0.44	23.4
2003-04	11	2	20	7	221	0.53	26.9
2004-05	11	4	24	9	286	0.57	28.7

2005-06	15	5	28	12	301	0.60	29.5
2006-07	19	5	28	13	351	0.64	30.0
2007-08	21	6	28	13	395	0.64	30.0
2008-09	23	7	28	20	423	0.66	30.0
2009-10	24	7	28	21	487	0.71	31.0
2010-11	24	8	29	43	494	0.90	37.0
2011-12	25	8	29	35	498	1.00	43.0
2012-13	25	8	30	40	500	1.20	51.0
2013-14	25	9	31	41	510	1.40	58.0
2014-15	25	9	32	39	NA	1.50	58.3
2015-16	26	9	33	36	NA	1.50	61.0
2016-17	27	10	33	36	NA	1.60	67.3
2017-18	27	11	34	41	NA	1.70	69.7
2018-19	28	11	35	42	NA	1.75	68.0
2019-20	29	13	35	22	NA	1.73	70.9
2020-21	29	14	NA	22	NA	1.90	70.6
2021-22	30	15	NA	23	NA	1.97	71.4

Source: *World Bank, UNESCO, Saudi Arabian Monetary Authority (SAMA) Annual Reports of Various Years, GCC Education Industry Report of Various Years, Ministry of Education, 2021*

5.4 Gender Parity and Teaching Capacity in Saudi Higher Education

Table 4 highlights the progressive transformation in gender equity and teacher–student balance within Saudi Arabia's higher education system from 2000–01 to 2021–22.

1. Gender Parity in Higher Education (GPI)

The Gender Parity Index (GPI) started at a high level of 1.42 in 2000–01**,** indicating a higher female enrolment compared to males in the early 2000s. The GPI gradually declined toward parity (1.00) by 2016–17, maintaining near-equality thereafter (around 0.99–1.01). This steady movement toward 1.00 reflects balanced participation of men and women in higher education,

marking significant progress in gender equality. The shift also reflects policy reforms under Saudi Vision 2030**,** which emphasize women's empowerment and access to education across disciplines.

2. Pupil–Teacher Ratio (PTR)

The PTR fluctuated moderately between 20 and 23 during 2000–2015, suggesting a stable student-teacher ratio during the period of rapid enrolment expansion. From 2016 onward**,** PTR gradually improved to 15.0 in 2021–22**,** reflecting increased recruitment of academic staff and institutional strengthening. The declining PTR implies better instructional quality**,** enhanced student engagement**,** and greater institutional investment in teaching capacity**.**

3. Key Trends

The convergence of GPI toward parity and the reduction in PTR together indicate qualitative improvements in Saudi higher education. These patterns align with broader national goals of inclusive education, gender balance, and improved learning outcomes under SDG 4. Over the period 2000–01 to 2021–22, Saudi Arabia has maintained consistently high female participation in higher education, with the Gender Parity Index (GPI) generally at or above 1.00, reflecting strong gender inclusivity. Although the GPI dipped slightly below parity around 2013–14, female enrolment quickly returned to near-equal levels. Simultaneously, the Pupil–Teacher Ratio (PTR) declined from 20 in 2000–01 to 15 in 2021–22, indicating improvements in faculty recruitment and institutional capacity. Overall, these trends demonstrate sustained gender equity alongside the gradual strengthening of teaching resources in the country's higher education sector.

Table 4: Trends in the Gender Parity Index (GPI) and Pupil–Teacher Ratio (PTR) in Higher Education in Saudi Arabia, 2000–01 to 2021–22

Year	Gender Parity Index (GPI in Higher Education)	PTR for Regular Enrolment (University and Colleges)
2000-01	1.42	20.0
2001-02	1.38	21.0
2002-03	1.37	20.0
2003-04	1.40	22.0
2004-05	1.39	22.9
2005-06	1.35	22.4
2006-07	1.36	22.7
2007-08	1.28	20.7
2008-09	1.29	19.9
2009-10	1.15	19.2
2011-12	1.08	18.2
2012-13	1.01	18.9
2013-14	0.96	20.3
2014-15	0.99	21.0
2015-16	1.01	20.3
2016-17	1.00	19.8
2017-18	1.01	20.3

2018-19	1.00	20.0
2019-20	1.00	19.0
2020-21	NA	19.6
2021-22	0.99	15.0

Source: *World Bank, UNESCO Institute for Statistics.*

5.5 Indian Higher Education's Relationship with the Federal and State Governments

The governance of higher education in India is defined by the Seventh Schedule of the Constitution, which divides responsibilities between the Union and State governments through three lists—Union, State, and Concurrent. Since education is included in the *Concurrent List*, both levels of government share authority in this domain. To ensure uniform standards and coordinated development, the Union Government plays a leading role in formulating policies, funding institutions, and overseeing scientific, technical, and professional education. It also supports international collaboration, research promotion, and faculty development. Agencies such as the University Grants Commission (UGC) administer scholarships, fellowships, and grants to universities and students across the country.

The Central Government sets national policies and funds key initiatives, while State Governments implement these programs and manage regional higher education institutions. States also establish councils and advisory bodies to coordinate institutional growth and resource allocation. Collaboration between the two levels of government is maintained through joint committees, conferences, and centrally sponsored schemes, ensuring both national coherence and local responsiveness. Thus, India's higher education system operates under a shared governance model where the Centre provides strategic direction and financial support, and the States ensure effective implementation and institutional expansion.

5.6 Role of Various Agencies in the Financing of Higher Education

(A) India

India's higher education system is supported by multiple government and non-governmental agencies that collectively contribute to funding, regulation, and quality enhancement.

1. University Grants Commission (UGC)

The UGC is the apex body responsible for coordination, policymaking, and maintenance of standards in higher education. It provides financial assistance to public universities and offers numerous scholarships and fellowships to students. On average, the UGC allocates around ₹725 crore annually toward doctoral and post-doctoral fellowships. Prominent UGC-funded scholarship schemes include the *Postgraduate Merit Scholarship* and the *Ishan Uday Scholarship* for meritorious students.

2. NITI Aayog

As India's premier policy think tank, NITI Aayog plays an advisory role in shaping educational financing and development priorities. It has been emphasized that neglecting higher education would impede national progress. While approximately 3% of India's GDP is currently spent on education, NITI Aayog has recommended increasing this to at least 6% by 2022 to achieve long-term educational and economic growth.

3. Ministry of Education

The Ministry of Education, comprising the Department of School Education and Literacy and the Department of Higher Education, is a major source of institutional funding. In the Union Budget 2021–2022, the Ministry received ₹93,224 crore, of which ₹38,350 crore was allocated to higher education and ₹54,874 crore to school education.

4. Higher Education Financing Agency (HEFA)

HEFA, a joint venture between the Ministry of Education and Canara Bank, provides financial support for developing educational infrastructure and research facilities. Its goal is to enable Indian institutions to achieve global competitiveness through world-class facilities.

5. Professional and Statutory Councils

Several statutory bodies oversee and fund discipline-specific institutions. These include the Medical Council of India (MCI), Indian Council of Social Science Research (ICSSR), Indian Council of Agricultural Research (ICAR), National Council for Teacher Education (NCTE), Dental Council of India (DCI), and Council of Scientific and Industrial Research (CSIR). They regulate courses, accredit institutions, and fund academic and research activities at the tertiary level.

(B) Saudi Arabia

In Saudi Arabia, several key institutions contribute to the financing, regulation, and development of higher education, reflecting the government's strong commitment to educational advancement.

1. Ministry of Education (MOE)

The MOE serves as the central authority for higher education policy, administration, and financing. Approximately 24% of the national budget in 2020 was devoted to education, with a substantial share directed toward universities and research institutions.

2. Saudi Arabian Cultural Mission (SACM)

SACM plays a vital role in managing the *King Abdullah Scholarship Program* (KASP), which funds Saudi students studying abroad by covering tuition, housing, and medical expenses. In 2022, over 90,000 Saudi students were beneficiaries of this initiative.

3. National Centre for Assessment in Higher Education (Qiyas)

Qiyas contributes indirectly to the financial landscape through standardized testing and evaluation services. It manages nationwide examinations that inform admissions and funding decisions for higher education institutions.

4. Technical and Vocational Training Corporation (TVTC)

TVTC promotes technical and vocational education by financing programs aligned with labour market needs. It collaborates with universities to provide practical and job-oriented training.

5. Saudi Arabian Universities

Universities themselves serve as both recipients and generators of funds. While public universities primarily rely on government grants, they increasingly generate revenue through student fees, research grants, and consultancy services. Private institutions depend mainly on tuition fees, donations, and international partnerships.

6. Research and Development Initiatives

Government bodies such as the Saudi Arabian General Investment Authority (SAGIA) and the Ministry of Education fund R&D initiatives at universities, supporting innovation hubs and technology transfer programs.

7. Endowments and Philanthropic Organizations

Endowments and charitable donations from individuals and private entities contribute significantly to scholarships, research, and infrastructure development.

8. Supreme Council of Universities

The Supreme Council serves as the highest governing body for higher education, overseeing policy formulation, budget allocation, and academic program approval.

9. Local and Regional Governments

In addition to federal funding, local and regional governments contribute to specific institutional needs, ensuring broader educational access and equity across provinces.

5.7 Sources of Finance for Higher Education

(A) India

1. Public Funding: Central and state governments remain the primary financiers of higher education. The central government provides substantial grants to central universities, while state universities receive funding from their respective state budgets. Agencies such as UGC, AICTE, NCTE, and NUEPA play key roles in fund distribution and quality enhancement.

2. Private Funding: The private sector's role in higher education has grown significantly through the establishment of self-financing institutions, donations, corporate sponsorships, and partnerships.

3. Local Bodies: Municipalities, Zilla Parishads, and Panchayati Raj institutions support higher education at the community level through local taxes and state-aided initiatives.

4. Student Fees: Tuition and user fees for facilities such as laboratories, libraries, and sports contribute an important share to university revenues.

5. Education Loans: Government and commercial banks provide education loans to students, indirectly supporting the higher education financing ecosystem.

6. NGO Funding: Non-governmental organizations offer scholarships and grants to promote educational inclusion and equity.

7. Endowments: University endowments provide long-term financial sustainability, supporting scholarships, research, and institutional autonomy.

(B) Saudi Arabia

The Saudi higher education financing system has undergone major diversification in recent years.

1. Government Funding: The Saudi government continues to be the dominant source of university funding, allocating around 24% of its annual budget to education.

2. King Abdullah Scholarship Program: This flagship initiative fully funds Saudi students pursuing higher education abroad, covering tuition, living, and travel expenses.

3. Private Sector Investment: Efforts to attract private participation have led to a rise in privately funded universities and partnerships with international institutions.

4. Research Grants: Universities receive targeted research funding from the government and private agencies. Saudi Arabia ranked 18th globally in 2020 for R&D spending as a share of GDP.

5. Endowments and Donations: Philanthropic contributions support academic programs, research, and scholarships—exemplified by endowed chairs such as the *Prince Naif bin Abdulaziz Chair for Prophetic Sunnah Studies* at King Abdulaziz University.

6. Tuition Fees: While public universities provide free education to Saudi citizens, tuition fees are charged to international students for select programs.

7. Research and Consultancy Income: Universities generate additional revenue through consultancy services and collaborative research projects with the public and private sectors.

8. International Partnerships: Saudi universities collaborate globally through joint research, faculty exchanges, and sponsored academic initiatives supported by foreign governments and international organizations.

5.8 Comparative Analysis of Higher Education Financing, Equity, and Returns in India and Saudi Arabia

Table 5: Source of Funding

Parameters	India	Saudi Arabia
Government Funding (%)	65%	95%
Private Funding (%)	30%	4%
Foreign Investments (%)	2%	0.5%
Others (%)	3%	0.5%

Table 6: Equity and Access

Parameters	India	Saudi Arabia
Gender Ratio (M:F) in HE	60:40	50:50
Urban Enrolment (%)	70%	80%
Rural Enrolment (%)	30%	20%
Scholarships Offered	500,000	200,000

Table 7: Return on Investment

Parameters	India	Saudi Arabia
Average Tuition Fee (USD/year)	1,500	500 (subsidized)
Average Starting Salary (USD/year)	8,000	12,000
Student Loan Default Rate (%)	12%	2%

1. Source of Funding

In sharp contrast to India's more varied financial sources, Saudi Arabia heavily relies on government money that is obtained from its oil resources.

2. Equity and Access

Although both nations have made progress in supporting higher education, obstacles still exist. In India, gender inequality is clearly a problem, but Saudi Arabia boasts nearly equal enrolment of males and females in higher education.

3. Return on Investment

In Saudi Arabia, it seems like earning a higher school degree will pay off financially right away. The average beginning salary and the decreased rates of student loan default are clear indicators of this.

However, it's crucial to take into account other elements when interpreting these findings. For instance, these figures can be considerably impacted by the cost of living, cultural expectations, and employment trends. In India, a diverse employment market provides a variety of options but also brings fierce competition, which affects starting earnings. On the other hand, Saudi Arabia's more constrained employment market, which is dominated by its oil industry and state sector, offers a distinct set of difficulties and opportunities.

5.9 Comparing Government Spending on Higher Education in India and Saudi Arabia

Table 8 presents a comparative view of government expenditure on higher education in India and Saudi Arabia between 2010 and 2018, highlighting major contrasts in both absolute spending and spending as a share of GDP**.**

1. Overall Spending Levels

Saudi Arabia consistently allocated more financial resources to higher education than India in absolute terms. For instance, in 2010, Saudi Arabia spent USD 8.0 billion**,** compared to India’s USD 4.9 billion; by 2018, these figures rose to USD 12.2 billion and USD 14.5 billion, respectively. While India’s total spending grew rapidly in later years, it started from a much smaller base, reflecting its lower per-student expenditure given the vast population.

2. Spending as a Share of GDP

Saudi Arabia's higher education spending averaged between 4–5% of GDP**,** demonstrating strong state commitment and heavy investment in tertiary education. In contrast, India's expenditure remained below 1% of GDP throughout the period (rising modestly from 0.41% in 2010 to 0.83% in 2018). This wide gap underscores the structural underfunding of higher education in India relative to its economic size and developmental needs.

3. Growth Patterns and Trends

India's spending grew almost threefold from 2010 to 2018, reflecting the gradual prioritization of higher education through schemes like RUSA, NEP initiatives, and skill development programs**.** Saudi Arabia maintained stable yet substantial investment**,** aligning with its Vision 2030 strategy to diversify the economy through education, research, and innovation. Despite slower GDP growth, Saudi Arabia's proportionate commitment to education financing remained significantly higher.

4. Comparative Perspective

Both India and Saudi Arabia have developed multifaceted financing systems for higher education, though their structures reflect differing governance models and economic contexts. India emphasizes a mixed model combining public, private, and community-based funding, while Saudi Arabia maintains a predominantly state-funded system that is gradually embracing privatization and internationalization. The comparative analysis of these mechanisms highlights opportunities for policy learning, particularly in balancing equity, efficiency, and sustainability in higher education financing.

Table 8: Comparing the Government Spending on Higher Education in India and Saudi Arabia

Year	Country	Government Spending on Higher Education (In billions of USD)	Higher Education Spending (As % of GDP)
2010	India	4.9	0.41%
2010	Saudi Arabia	8.0	3.9%
2011	India	5.2	0.44%
2011	Saudi Arabia	8.8	4.3%
2012	India	7.1	0.49%
2012	Saudi Arabia	8.5	4.2%
2013	India	6.9	0.54%
2013	Saudi Arabia	9.1	4.5%
2014	India	7.3	0.59%
2014	Saudi Arabia	9.8	4.9%
2015	India	10.8	0.69%
2015	Saudi Arabia	10.0	5.17%
2016	India	12.5	0.78%
2016	Saudi Arabia	10.3	4.71%
2017	India	13.5	0.81%
2017	Saudi Arabia	11.1	4.42%
2018	India	14.5	0.83%
2018	Saudi Arabia	12.2	4.76%

Source: *Compiled from national budget documents (India: Ministry of Education and AISHE Reports; Saudi Arabia: Ministry of Finance and SAMA Reports), supported by data from UNESCO UIS and World Bank WDI. USD values are adjusted for exchange rates and inflation based on the author's calculations.*

6. Discussion

The comparative analysis of higher education financing in India and Saudi Arabia highlights the influence of socio-economic, cultural, and policy contexts on educational development. India's higher education system, characterized by a vast and diverse student population, relies on public funding, private investment, and student contributions to ensure accessibility and affordability (Altbach & De Wit, 2017; Alshahrani & Ally, 2017). Affirmative action initiatives, such as the reservation system and targeted scholarship schemes, demonstrate India's strong commitment to promoting equity and addressing historical social disparities in access to higher education (Tilak, 2015; Sudarshan, 2015; and Deshpande, 2019). The expansion of private universities and adoption of innovative financing mechanisms, such as income-contingent loans, demonstrate efforts to diversify funding sources while maintaining inclusivity (Rani, 2016).

In contrast, Saudi Arabia has historically relied on oil-generated public funds to provide tuition-free higher education and scholarships, including the King Abdullah Scholarship Program, facilitating international study opportunities (Hall, 2013; Hilal, 2015; Bunaiyan, 2019). The government's strong fiscal commitment is evident from the allocation of approximately 24% of the national budget to education in 2020 (Saudi Arabian Monetary Authority, 2021). Recent reforms under Vision 2030 have promoted funding diversification, encouraging private sector participation, public-private partnerships, and research investment to build a knowledge-based economy (Alrashidi, 2024).

A comparative review of gender parity shows that India's Gender Parity Index (GPI) in higher education improved from 0.72 in 2001–02 to 1.01 in 2021–22, surpassing parity in 2017–18, largely due to initiatives such as *Beti Bachao Beti Padhao* and the Kasturba Gandhi Balika Vidyalaya scheme (UGC, 2022; AISHE, 2022). Over the past two decades, Saudi Arabia has demonstrated remarkable progress in advancing women's participation in higher education. The Gender Parity Index (GPI) reached approximately 1.15 in 2021, indicating that female enrolment has surpassed that of males, an outcome reflecting the effectiveness of national policies and strategic initiatives aimed at promoting women's education and empowerment (UNESCO Institute for Statistics, 2021; Elhadary & Abdelatti, 2024). These trends align with Sustainable Development Goals 4 and 5, emphasizing equitable access to higher education (Rizvi, Lingard, & Rinne, 2022).

Analysis of the Pupil–Teacher Ratio (PTR) demonstrates moderate improvements in instructional capacity. In India, PTR fluctuated between 20 and 30, decreasing to 24 by 2021–22, suggesting progress in faculty recruitment but ongoing challenges in maintaining teaching quality amid rising enrolments (UGC, 2022). In Saudi Arabia, PTR declined from 20 in 2000–01 to 15 in 2021–22, indicating enhanced teaching resources and quality assurance aligned with national higher education objectives (World Bank, 2021; Abouelnag et al., 2019).

Financially, India's higher education sector remains comparatively underfunded, with government expenditure below 1% of GDP, whereas Saudi Arabia consistently allocated 4 to 5% of GDP to higher education between 2010 and 2018 (Abubakar et al., 2020). This disparity reflects fundamental structural differences between the two systems: while India allocates educational resources across a vast and heterogeneous population with an extensive institutional network, Saudi Arabia's comparatively smaller, oil-driven economy allows for more concentrated and strategically targeted investment in higher education (Srivastava, 2014; Study in Saudi Arabia, 2025). India relies on a diversified mix of funding sources, government (65%), private funding (30%), foreign investment (2%), and others (3%) (Ministry of Education, India, 2022), whereas Saudi Arabia relies almost entirely on government funding, accounting for approximately 95% of financing (Khayati & Selim 2019).

A distinctive feature of Saudi Arabia's system is the role of oil returns. Hamdan and Hamdan (2020) examined the mediating effect of oil wealth on the relationship between higher education investment and economic growth. They found that while oil revenues enable substantial investment in higher education, this alone does not directly generate economic growth. Complementary reforms and knowledge creation are essential for higher education to effectively contribute to the economy.

Both countries recognize higher education as a strategic investment in human capital, fostering economic growth, social mobility, and innovation. India's efforts to enhance access, equity, and inclusion, and Saudi Arabia's focus on building a knowledge-based economy, offer valuable lessons for nations seeking sustainable and effective higher education financing strategies (Altbach, Reisberg, & Rumbley, 2019). Sustained investment in the quality, equity, and accessibility of higher education is critical not only to maintain reform gains but also to ensure that the sector meaningfully supports long-term socio-economic growth (Runde, Bandura & McLean, 2023).

7. Conclusion and Policy Implications

The comparative dynamics of India and Saudi Arabia highlights distinct approaches to higher education financing shaped by their economic structures and policy priorities. India follows a mixed financing model combining public expenditure, private investment, and student contributions, which has broadened access but continues to face challenges of quality, equity, and financial sustainability. In contrast, Saudi Arabia's higher education system, historically dominated by public funding derived from oil revenues, is transforming Vision 2030 to diversify funding sources, strengthen private-sector participation, and promote innovation and human capital development. While both countries have achieved notable progress in enrolment, gender parity, and institutional growth, maintaining financial sustainability and enhancing global competitiveness remain critical. To address these challenges, both nations must diversify funding mechanisms through balanced public–private partnerships, endowments, and alumni contributions. Expanding need-based scholarships, income-contingent loans, and financial aid programs can enhance access for underprivileged groups. Furthermore, investing in faculty development, research infrastructure, and quality assurance systems is essential to sustain academic excellence. Promoting university–industry collaboration and supporting research and innovation can strengthen economic linkages and foster knowledge-based growth. India should gradually increase public expenditure on higher education toward the recommended 6% of GDP, while Saudi Arabia should strategically manage its dependence on oil revenues through stabilization and education development funds. Aligning higher education financing with national policy frameworks, India's *National Education Policy 2020* and Saudi Arabia's *Vision 2030,* will be crucial for achieving inclusive, sustainable, and globally competitive higher education systems.

Higher education financing in India and Saudi Arabia exemplifies the dynamic interplay between tradition and modernity. India's diverse system combines public funding, private investment, scholarships, and gender-focused initiatives to promote equity, accessibility, and progress toward SDG 4 and SDG 5. Saudi Arabia, historically reliant on government-funded programs, is transforming under Vision 2030 through diversified funding, public-private partnerships, and knowledge-based initiatives while maintaining high enrolment and gender parity. Together, these experiences highlight higher education as a strategic national investment

and a driver of economic growth, innovation, and social advancement, underscoring the need for adaptable, sustainable, and context-sensitive financing models responsive to evolving societal, technological, and economic challenges.

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