



Egyptian Higher Education System: Core Challenges and Reform Plans in Light of Egypt's Vision 2030

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Abstract: The Egyptian higher education system has undergone significant transformations to align with national development objectives and global advancements. This report presents a comprehensive analysis of the system, including its current framework, governance, funding sources, and ongoing reform initiatives. Despite considerable progress in digital transformation, curriculum creation, and international certification, challenges such as resource deficiencies, outdated pedagogical methods, and misalignment with labour market demands persist. The paper highlights the government's measures to enhance educational quality, promote innovation, and foster sustainability under Egypt Vision 2030. Nonetheless, structural issues such as inadequate accreditation rates, centralisation, and overcrowding underscore the pressing necessity for further reforms. By addressing these concerns, Egypt may enhance its higher education system to fulfill both local and global demands, thereby ensuring equitable access and improved outcomes for society and individuals.

Keywords: higher education, governance and financing system, Egypt Vision 2030, challenges and issues.

I. INTRODUCTION

The Egyptian higher education system has a lengthy history defined by continuing developments, notably in recent years, in reaction to worldwide progress. These alterations reflect an endeavor to adjust to and adhere to the evolving dynamics of global higher education. To thoroughly appreciate the dynamics of the Egyptian higher education system, it is important to analyze the cultural, social, and political backdrop that strongly influences it.

The cultural context of Egyptian society is rooted in its geographical positioning at the northeastern extremity of the African continent and the far western edge of the Asian continent, particularly within the Sinai Peninsula. This strategic location renders Egypt a pivotal entity in the Arab world and bestows upon it considerable significance in the Islamic realm, functioning as the eastern gateway to Africa. Egypt shares borders with three nations: occupied Palestine to the northeast, Sudan to the south, and Libya to the west. Furthermore, it is flanked by two bodies of water: the Mediterranean Sea to the north and the Red Sea to the east. The nation encompasses an area of approximately one million square kilometers, which is administratively segmented into 28 governorates. Historically, Egypt is esteemed as one of the most ancient countries globally, harboring one of the earliest and most distinguished civilizations in history (Wikipedia, 2024).

The Egyptian state operates under a democratic republican system characterized by principles of citizenship, political and party pluralism, peaceful power transitions, and the separation and balance of powers. It asserts that authority must be accompanied by responsibility, champion human rights and freedoms, and uphold the rule of law. Political activities in Egypt are conducted within a presidential republican framework (Egypt State Information Service, 2020). Economically, Egypt embraces a capitalist system grounded in supply and demand and private sector ownership. In 2024, the Gross Domestic Product (GDP) was approximately \$380.044 billion. The official currency is the Egyptian pound, valued at \$0.020 (Wikipedia, 2024).

Socially, the population of Egypt, as reported by the Central Agency for Public Mobilization and Statistics in 2025, reached approximately 107 million people, excluding expatriates. Most of the population is concentrated in the Nile Valley and Delta, with significant population density observed in Cairo, Giza, Alexandria, and Qalyubia, while it diminishes in the border governorates (Egypt Central Agency for Public Mobilization and Statistics [CAPMAS], 2024).

Arabic is the official language of the country, while English and French are used in economic activities. Regarding religion, Islam is recognized as the state religion according to the constitution, with the principles of Islamic Sharia serving as the primary source

of legislation. The principles of the religious laws of Egyptian Christians and Jews are the principal sources of the regulations governing their personal status and religious affairs(Wikipedia, 2024).

In terms of education, higher education in Egypt is quite diverse and has been witnessing significant developments aimed at keeping pace with global systems. This is evident in the number of institutions, their distribution, their role in economic development, and their presence in international university rankings.

II.Overview of Higher Education In Egypt

The history of higher education in Egypt commenced in 988 AD with the founding of Al-Azhar, recognized as the oldest continually functioning institution globally. Initially, Al-Azhar concentrated on religious studies, Islamic jurisprudence, Arabic syntax, and additional fields. By 1957, Egypt had five state universities located in prominent cities such as Cairo, Alexandria, and Asyut, in addition to one private university, the American University in Cairo. Until the 1950s, Egypt upheld worldwide norms in higher education and scientific research.

Beginning in the 1960s, the higher education landscape in Egypt experienced substantial transformations, characterized by an expansion that resulted in the creation of university branches nationwide (Organisation for Economic Co-operation and Development [OECD], 2010). These branches then developed into autonomous universities in the 1970s. The change persists, with the number of institutions rising significantly to almost 100 by the 2024/2025 academic year, up from 41 in the 2013/2014 academic year. These institutions are classified as follows: There are 28 governmental universities, 19 community universities, 34 private universities, 2 specialized universities, 12 governmental technology universities, and 5 international universities, illustrating a broad and expanding educational landscape (Supreme Council of Universities, 2025).

The rate of student enrollment in higher education has risen in recent years, reaching 38.1% in 2021. The institutional framework guarantees that all Egyptians can enroll in governmental universities upon attaining a qualifying academic score in high school. Nevertheless, challenges persist, including heightened competition among higher education institutions and the necessity to align education with labor market demands. This alignment is essential for ensuring that graduates possess the requisite skills to contribute effectively to the economy (UNESCO National Commission, 2022).

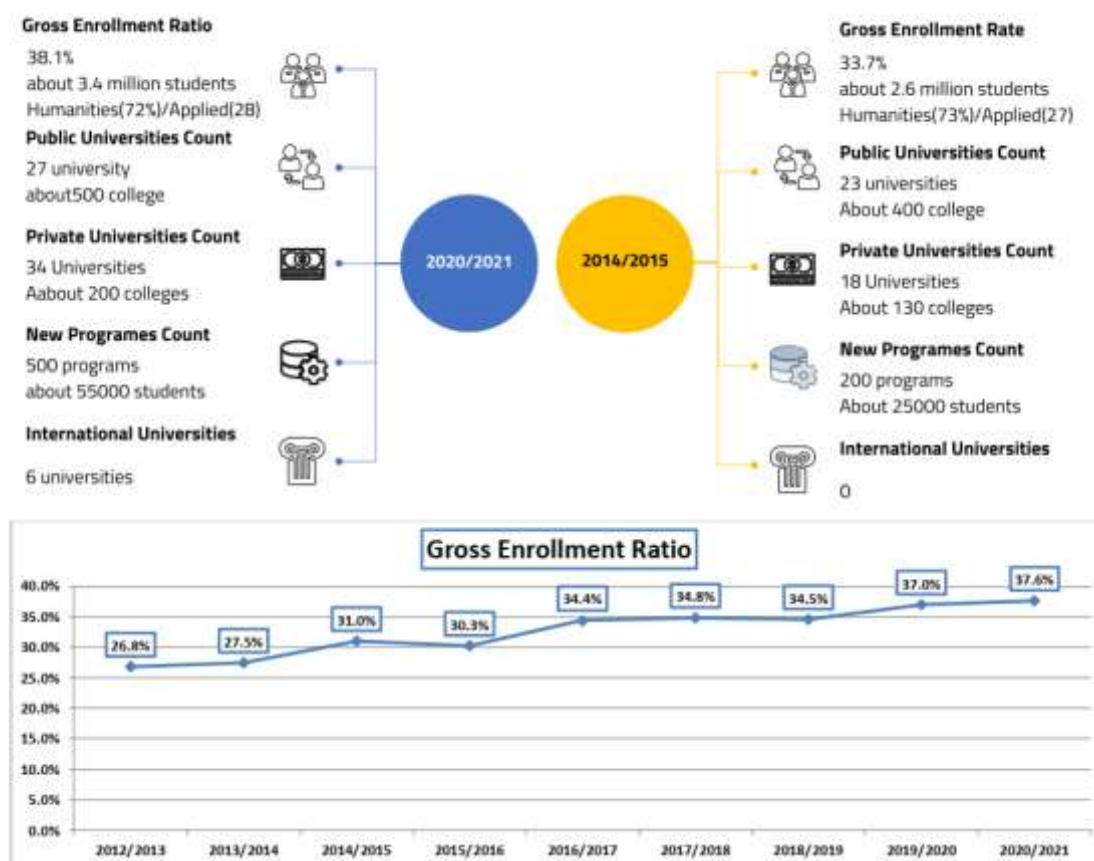


Figure 1. The evolution of the higher education scene in Egypt from 2014/2015 to 2020/2021. adapted from the Egyptian higher education report, UNESCO National Commission, MOHESR, Egypt (2022, p. 5).

The increase in demand for higher education is due to various causes, such as population expansion within the 18 to 23 age demographic and societal views of higher education as a pathway to social mobility and improved employment prospects. A rising demand exists for highly qualified human capital to facilitate community development. Higher education is perceived as a conduit for obtaining superior work prospects, as well as a mechanism for elevating social standing and fostering Egypt's economic and social progress. This societal acknowledgment highlights the significance of higher education in promoting individual and national advancement (Elmahdy Salem, 2021).

Article 1 of the Law on the Regulation of Egyptian Higher Education Institutions underscores the higher education institutions' function in promoting intellectual development, scientific inquiry, and humanistic values. Universities strive to cultivate specialists and experts while fostering cultural and scientific connections with other institutions. The legal framework facilitates the growth of governmental, private, and community universities, alongside distance education and e-learning, to address the rising student

population and reduce the strain on current institutions. This growth is integral to a comprehensive strategy aimed at improving access to higher education and aligning it with national development objectives (Bakry, 2006).

The growth of higher education in Egypt is propelled by demands from both official and public entities for the enhancement of educational facilities. This encompasses the creation of new universities and the improvement of existing institutions, along with the advancement of remote education and e-learning. These programs seek to create chances for the growing student population and to guarantee educational accessibility throughout various locations, therefore facilitating the spatial dispersion of educational institutions and aiding national growth.

III. Governing and Financing the Egyptian Higher Education System:

The regulation of higher education in Egypt is overseen by a multifaceted structure of regulating entities, with the Ministry of Higher Education and Scientific Research (MoHESR) acting as the principal authority for policy development, execution, and coordination among all post-secondary institutions. The Ministry of Higher Education and Scientific Research supervises multiple facets of higher education, encompassing planning, quality assurance, and student admissions via its Central Coordination Office. It plays a vital role in training primary education instructors and ensuring that higher education is congruent with national development objectives. The Supreme Council of universities (SCU) complements the Ministry of Higher Education's (MoHE) initiatives by serving as a coordinating entity for public institutions, presided over by the Minister of Higher Education, and includes university presidents and civil society members. The SCU is responsible for establishing educational policy, delineating quality criteria for academic programs, and guaranteeing equal resource distribution among public institutions (Organisation for Economic Co-operation and Development [OECD], 2010).

On the other hand, private universities are governed by the Supreme Council of Private Universities, as stipulated by Law No. 101 of 1992. The council, chaired by the Minister of Higher Education, supervises the formation and functioning of private universities. In contrast to public universities, private institutions possess enhanced autonomy, especially regarding financial and academic decisions, as they predominantly depend on tuition fees for revenue. This financial autonomy enables them to react more adeptly to market needs and scholarly trends. Furthermore, two institutions operate independently of the MoHESR's authority: Al-Azhar University, overseen by the Central Administration for Al-Azhar Institutes under the Supreme Council of Al-Azhar, and the American University in Cairo (AUC), which possesses a distinct legal status that exempts it from Law No. 101, thereby affording it considerable operational autonomy (Organisation for Economic Co-operation and Development [OECD], 2010).

The legislative framework regulating higher education in Egypt is established by many statutes. Public universities function under Law No. 49 of 1962, which confers legal individuality and financial autonomy, however their administration is intimately associated with the MoHESR and the SCU. Private universities are governed by Law No. 101 (Bakry, 2006), whilst technological institutions are subject to Law No. 528 of 2003. These laws establish the operational and governance structures for each institution type, assuring conformity with national educational policies.

In addition to these regulating agencies, various entities report directly to the Prime Minister and hold substantial influence in higher education. The National Authority for Quality Assurance and Accreditation of Education (NAQAAE) accredits all educational levels, while the Education Development Fund promotes educational programs. The Supreme Council for Human Resource Development contributes by formulating national plans for training and employment, guaranteeing educational alignment with labor market requirements.

The administration of higher education in Egypt is additionally shaped by other ministries. The Ministry of Finance supervises budget allocations for public universities, whereas the Ministry of Economic Development administers the national investment budget. The Ministry of Administrative Development governs public sector employment, encompassing faculty roles in public institutions, while the Ministry of Education is instrumental in equipping students for higher education through its supervision of pre-university education and technical training systems. The interministerial cooperation underscores the interconnectedness of higher education governance in Egypt, as policies and actions in one sector frequently produce rippling effects in others (Organisation for Economic Co-operation and Development [OECD], 2010).

At the institutional level, Public universities are administered by university councils comprising the university president, vice presidents, and faculty deans. These councils are tasked with academic and administrative decision-making, as stipulated in Law No. 49. The legislation delineates the appointment procedures, responsibilities, and working conditions for academic personnel, differentiating them from non-academic staff, who are regulated by public sector legislation. This distinction highlights the exceptional status of academic professionals within the higher education system (El-Nashar, 2022).

Public higher education in Egypt is primarily financed by the government, which accounts for roughly 85-90% of institutional expenditures. Universities must provide the remaining 10-15% through self-generated revenue, including fees from specialized programs or community services (El-Nashar, 2022).

The financial structure is predominantly centralized, granting universities minimal autonomy in budget reallocation or resource allocation. The Ministry of Finance enforces stringent controls on the utilization of self-generated revenue, mandating colleges to deposit these monies into specified accounts. This centralized methodology frequently constrains colleges' capacity to adapt swiftly to evolving demands or prospects. Conversely, private institutions function in a self-sustaining paradigm, predominantly depending on tuition revenue. This financial autonomy provides enhanced flexibility in resource distribution, program creation, and research financing, rendering them more responsive to evolving academic and market requirements.

In spite of the difficulties presented by the centralized finance system, public institutions have implemented fee-based programs since 2007 to augment revenue. These programs address market demands and offer students specialized educational options. The restricted autonomy of public institutions continues to be a substantial limitation. Improving financial autonomy and cultivating public-private collaborations may mitigate certain obstacles, allowing public institutions to innovate and compete more efficiently. Private universities, due to their enhanced flexibility, exemplify new financial and academic practices, providing insights into the potential evolution of public institutions (Buckner, 2013).

Amid the increasing focus on higher education and scientific research, along with the growth and advancement of these sectors for global competition, the budget of the Ministry of Higher Education and Scientific Research has markedly risen. In the fiscal year

2020/2021, the ministry's budget increased to 65 billion Egyptian pounds, up from 25 billion pounds in 2014/2015, representing a rise of 40 billion pounds, or a 160% growth rate. This significant increase demonstrates the government's dedication to improving the quality and accessibility of higher education and research.

Furthermore, consistent with global trends emphasizing scientific research, the share of national income allocated to scientific research has increased. In the 2020/2021 budget, research allocations constituted roughly 0.74% of the national income, totaling 32.12 billion pounds. This signifies a significant rise relative to the 2013/2014 budget, in which research allocations were 0.64% of the national income, amounting to 11.89 billion pounds (Elmahdy Salem, 2021). This increasing trend in financing highlights Egypt's endeavors to enhance its research capabilities and conform to international standards in higher education and scientific innovation. In summary, Egypt's higher education system is regulated by a complex framework of laws, rules, and inter-ministerial cooperation. The Ministry of Higher Education is pivotal in coordinating policies and assuring conformity with national development objectives. Public universities are subject to extensive regulation and government funding, whereas private institutions possess enhanced autonomy and financial independence. Confronting issues pertaining to financial independence, inter-ministerial collaboration, and resource distribution will be essential for the ongoing advancement and enhancement of Egypt's higher education system. By promoting innovation and collaboration, Egypt may enhance its higher education sector to more effectively address the needs of its students and the requirements of a swiftly evolving global economy.

IV. Constant Plans for Changing and Advancing the Egyptian Higher Education System

Most nations around the world have seen reform in education, especially with an eye on quality. Quality has gotten a lot of attention as it is regarded as one of the basic foundations of the new management model that has evolved to try to fit local and global developments. Consequently, the worldwide society sees educational change and excellence as two sides of the same coin. Any institution trying to flourish and grow has as its first goal quality, especially in view of the dynamic changes taking place in educational systems all around.

The Egyptian government has acknowledged the necessity for ongoing initiatives to reform higher education and align it with contemporary developmental trends and constant enhancement. A pivotal milestone in the reform of Egyptian higher education was the convening of the National Conference for Higher Education Development in February 2000. At this conference, a strategy was devised to enhance the higher education system, encompassing 25 development projects slated for implementation by 2017. The Cabinet sanctioned the prioritization of a subset of these projects, totaling 12, with an estimated cost of around 720 million Egyptian pounds. The implementation of these projects was planned as an initial phase from 2002 to 2007 and subsequently incorporated into six core projects on July 3, 2002 (Ministry of Higher Education, 2005).

The six initiatives constituting the initial phase of higher education advancement are as follows: Higher Education Enhancement and Executive Projects Fund (HEEPF), Faculty of Education Development Project (FOEP), Egyptian Technological Colleges Project (ETCP), Information and Communication Technology in Higher Education Project (ICTP), Quality Assurance and Accreditation Project (QAAP), and Faculty Leadership Development Project (FLDP) (Hanafi, 2013).

The Performance Evaluation and Quality Assurance Project (QAAP) is regarded as one of the earlier initiatives in the advancement of higher education in Egypt. It functioned as a foundation for the development of a quality assurance and accreditation system (OECD, World Bank, 2010). The initial phase of its implementation involved the creation of the National Authority for Quality Assurance and Accreditation (NAQAAE), which was designated as the entity responsible for fostering a quality culture across educational institutions and society. NAQAAE is responsible for formulating national standards that correspond with international benchmarks to reform educational institutions and enhance their processes and outcomes, thereby fostering community trust, augmenting local and international competitiveness, and advancing sustainable development objectives in Egypt (NAQAAE, 2009). Also, The National Authority for Quality Assurance and Accreditation (NAQAAE) is dedicated to the continuous updating and development of quality assurance and accreditation standards for educational institutions in order to keep pace with the evolving changes in the surrounding world. This is also in alignment with Egypt's Vision 2030 (Ministry of Planning, Follow-up and Administrative Reform, 2015), which includes as one of its primary goals the advancement of higher education institutions through a set of performance indicators. Among these indicators is the requirement that all higher education institutions be accredited at least twice by the NAQAAE before the year 2030.

Subsequently, Egypt Vision 2030 (Ministry of Planning, Follow-up and Administrative Reform, 2015) was established, comprising several objectives within three principal pillars: the economic pillar, the social pillar, and the environmental pillar. Each primary pillar comprises a collection of sub-pillars. The social pillar encompasses the sub-pillars of education, innovation, knowledge, and scientific research. The sub-pillars comprise a set of objectives that the state intends to accomplish by 2030 to elevate the quality of the Egyptian higher education sector. These objectives include the promotion of lifelong learning, the establishment of a national qualifications framework in Egypt, the accreditation of higher education institutions by the National Authority for Quality Assurance and Accreditation of Education at least twice before 2030, enhancing the ranking of Egyptian universities in international classifications, doubling governmental funding for higher education, restoring trust between the community and the education administration in Egypt through a national policy for effective development implementation and a national media policy for educational discourse, and assessing citizen satisfaction with the quality of educational services. Furthermore, there exists an objective for international excellence in the formulation of curricula and educational resources, equipping students with essential life skills, especially 21st-century competencies, facilitating learning for sustainable development, and yielding educational outcomes that foster critical thinking, creativity, innovation, and entrepreneurship.

The Ministry of Higher Education and Scientific Research has developed its strategy based on three fundamental pillars to promote Egypt's developmental objectives. The principal focus is the Sustainable Development Strategy, referred to as Egypt's Vision 2030, which seeks to enhance the country's socio-economic structure by fostering sustainable practices and inclusive growth. The second axis addresses the transformation of institutions into fourth-generation institutions, emphasizing the imperative of fostering innovation and a research-centric educational atmosphere that prepares students for modern problems. The third axis concerns the synchronization of higher education and scientific research with Egypt's Comprehensive Development Plan, ensuring that academic endeavors are congruent with the nation's developmental goals. These interconnected elements form a cohesive strategy designed

to improve the quality of higher education in Egypt and promote the country's overall advancement (UNESCO National Commission, 2022).

The Ministry of Higher Education and Scientific Research (MoHESR) in Egypt has delineated seven principles that guide the enhancement of the higher education system and institutions: Integration, Interdisciplinarity, Connectivity, Effective Participation, Sustainability, International Referencing, and Innovation and entrepreneurship. These foundational principles substantially facilitate the transformation of educational institutions into open environments for innovation, attracting talent, and fostering a resilient ecosystem that guarantees the stability and establishment of these institutions (UNESCO National Commission, 2022; Egypt Vision 2030 MoHESR, 2018).

Primary Principle: Integration

This approach emphasizes the genuine integration of educational and production systems instead of considering them in isolation. It entails forming consortia of educational institutions within specific geographical areas to fulfill community requirements and educational deficiencies. Furthermore, it underscores the importance of collaboration with economic organizations to ascertain the educational requirements pertinent to each economic sector and synchronize academic outcomes with the goals of financial entities, thereby improving productivity.

Second Principle: Interdisciplinarity

The notion of interdisciplinarity aims to tackle the intricacies of societal issues and labor market requirements via interdisciplinary, multidisciplinary, and transdisciplinary courses. This method aids in rectifying weaknesses, broadening pupils' knowledge, and enhancing cognitive engagement. It entails delineating the compositional and integrative links among diverse disciplines, as manifested in educational content, techniques, and the comprehensive educational process.

Third Principle: Connectivity

Connectivity is fundamental to the Egyptian higher education system, as envisioned by 2030. It involves communication at several levels, both internally among community members and externally across borders. This principle seeks to promote collaboration, enhance accessibility, enable knowledge transfer, and cultivate an inventive environment. Internal connectivity pertains to national networks involving universities, industries, and government, whereas external connectivity encompasses worldwide collaboration among academic communities.

Fourth Principle: Effective participation

Effective participation underscores the joint engagement of all stakeholders in the educational process, encompassing government, civil society, corporations, and supportive educational institutions. This approach emphasizes the organization and administration of universities, their operational efficiency, and their economic influence. Higher education aims to enhance knowledge and foster discussion with society, tackling critical societal issues. Augmented investments in research, education, and innovation are vital to address emerging issues and enhance Egypt's ability to generate new knowledge and technology.

Fifth Principle: Sustainability

Sustainability seeks to optimize resource utilization while reducing waste, hence facilitating continuous education in universities, businesses, and everyday interactions. The Education for Sustainability (EfS) framework enables students, universities, and communities to engage in sustainability efforts at personal, communal, and global scales. This principle promotes the connection of educational resources to sustainable behaviors, calling for a holistic comprehension of sustainability that encompasses environmental, social, and economic aspects.

Sixth Principle: International referencing

International referencing is to guarantee that the quality of higher education conforms to both national and international norms. With the rise of institutional alliances and student mobility, there is an impetus for international competitiveness. The higher education system seeks to attain "International Quality Standards" through the acquisition of prestigious worldwide rankings, securing accreditation, and facilitating the transfer of skills. Collaborative research and industry involvement also elevate worldwide university rankings.

Seventh Principle: Innovation and Entrepreneurship

This principle emphasizes the significance of the triangle link among education, business, and research, especially within the context of Fourth Generation Universities. It entails developing novel approaches to integrate academic disciplines with business practices, highlighting innovation, creativity, and entrepreneurship within educational curricula. This method influences students and graduates by providing technological workshops, guest lectures, and possibilities for multidisciplinary collaboration, thus enabling the application of research findings in industry and production settings.

These principles collectively underpin the advancement of higher education in Egypt, fostering sustainable development and improving educational quality and outcomes in response to modern challenges. The Ministry of Higher Education and Scientific

Research has made substantial progress in executing this approach, emphasizing digital transformation, curriculum enhancement, international accreditation, and student involvement.

The initiatives in digital transformation commenced under the auspices of Egypt's Vision 2030, which seeks to evolve into a society propelled by information and innovation (Ministry of Planning, Follow-up and Administrative Reform, 2015). This project entails collaboration with the Ministry of Higher Education and Scientific Research, the Supreme Council of Universities, the Ministry of Communications, and the Ministry of Planning.

During the 2019/2020 academic year, Egyptian public institutions commenced the implementation of digital transformation initiatives, aided by the Ministry of Communications and Information Technology (The Supreme Council of Institutions, 2019). Significant accomplishments comprised the creation of 140 electronic service units, 22 data centers, 17 technological incubators, and 22 e-course production centers within public universities (Media Center of the Ministry of Higher Education and Scientific Research, 2018).

In December 2024, Egypt designated EGP 10 billion for the modernization of state universities' digital infrastructure, integrating artificial intelligence technologies. Simultaneously, efforts have been made to educate faculty members in innovative technologies, including cloud computing and data analytics, to improve their digital skills (Egypt allocates EGP 10bn for digital infrastructure in public universities, 2024). These approaches represent a holistic strategy to promote technological progress and digital literacy in higher education institutions.

In the field of curriculum development and alignment with labor market needs, significant progress has been made to enhance the quality of higher education and ensure its relevance to economic demands.

In August 2023, the Supreme Council of Universities released a new roadmap for academic programs to modernize the educational process in accordance with Egypt's Vision 2030. These programs were developed to align with labor market demands and enhance graduate competencies (Ministry of Higher Education and Scientific Research, 2023).

The Ministry of Higher Education has prioritized aligning scientific research with industrial requirements by supporting applied research initiatives and cultivating cooperation with industrial entities (Ministry of Higher Education and Scientific Research, 2023).

Designed to monitor the employment situation of graduates from higher education, the Ministry of Higher Education and Scientific Research is actively creating a sustainable labor market information system. This system will examine supply and demand patterns, so enabling future labor market research. This will help to guarantee that universities are closer to business leaders and industry leaders, so supporting the development of admission rules and economic policies. Moreover, the ministry has started initiatives to assist inventors and business owners in choosing the top ideas fit for startups. These initiatives aim to produce a generation of innovators and entrepreneurs ready to help local and global markets flourish as well as to contribute to economic development (Ministry of Higher Education and Scientific Research, 2023).

In a related context, the ministry has started an electronic career guidance platform for university students in order to attain a flawless integration between academic and career paths. This platform is meant to generate an environment that satisfies labor market needs and helps to match the outputs of higher education with graduate qualifications. This project is a component of a larger plan meant to improve graduates' preparedness for the employment market by means of which their skills match industry needs (Ministry of Higher Education and Scientific Research, 2023).

To carry out the Higher Education Career Guidance for Employment Program, the ministry has also signed a cooperation agreement with the International Labour Organization (ILO). Supported by the United Kingdom, this initiative aims to equip 2,000 young people with training and generate almost 1,000 decent jobs by year's end. This project emphasizes even more the ministry's dedication to increase graduates' employability and handle current labor market issues (Ministry of Higher Education and Scientific Research, 2023).

In the field of international recognition and rankings, Egyptian universities have made notable progress in global competitiveness and sustainability.

In June 2024, 46 Egyptian universities were included in the Times Higher Education Sustainability Impact Rankings, reflecting the ministry's dedication to aligning higher education with the Sustainable Development Goals (SDGs) (Ministry of Higher Education and Scientific Research, 2024). Furthermore, in the same year, 15 Egyptian universities were included in the QS World University Rankings 2025, with Cairo University attaining the 350th position worldwide (Ministry of Higher Education and Scientific Research, 2024). This progress demonstrates the efficacy of national efforts in enhancing educational quality through Practices such as international research collaborations, study-abroad initiatives, and cross-cultural academic interactions. Egyptian universities have cultivated an environment that promotes student engagement, creativity, and the development of practical skills.

Egyptian students have attained significant success in international contests, such as the Enactus World Cup and the MATE ROV Competition, underscoring their inventive potential (Ministry of Higher Education and Scientific Research, 2023). These achievements highlight the efficacy of High-Impact Practices (HIPs) such as capstone projects, hackathons, and experiential learning, which foster problem-solving abilities and enhance student motivation. Moreover, the digital revolution in education has been bolstered by efforts such as Benha University's Thinqi platform, which facilitates interactive e-learning courses (Ministry of Higher Education and Scientific Research, 2024). These initiatives correspond with High-Impact Practices such as blended learning and digital pedagogy, improving accessible and individualized learning experiences, thereby elevating student satisfaction.

The curriculum development framework in Egyptian institutions emphasizes a student-centered approach to enhance learning results.

The General Frame of Reference for Sector Committees 2025 underscores active learning approaches, promoting critical thinking and collaborative education—fundamental tenets of High-Impact Practices (HIPs) (General Frame of Reference for Sector Committees 2025). The framework facilitates the amalgamation of academic knowledge with practical application via internships, applied research, and industrial collaborations. These tactics correspond with High-Impact Practices (HIPs) such as service-learning and work-integrated learning, which improve employability and student engagement. Furthermore, the framework emphasizes the necessity of linking academic programs with the Sustainable Development Goals, integrating sustainability initiatives and global concerns into curricula. This methodology endorses High-Impact Practices such as community-based learning and global citizenship

education, cultivating a feeling of purpose and social responsibility in students, hence enhancing their academic and personal fulfillment.

Egypt's higher education and scientific research sector has also received significant attention, support, and follow-up from President Abdel Fattah El-Sisi, leading to unprecedented quantitative and qualitative development.

In this context, Dr. Ayman Ashour, Minister of Higher Education and Scientific Research, emphasized that Egypt has witnessed a remarkable leap in higher education and scientific research during President Abdel Fattah El-Sisi's tenure. This period has seen the support and development of the educational and research system, the establishment of infrastructure for numerous university faculties, the qualification of many academic programs to meet labor market needs, the development of research laboratories, and the accreditation of several faculties by the National Authority for Quality Assurance and Accreditation (NAQAA) and international accreditation bodies. Additionally, internet system servers have been provided, along with the automation and development of the informational infrastructure in universities and the establishment of numerous centers and units for measurement, evaluation, and excellence in research, education, and services. This has been achieved with financial support of nearly 800 million EGP, enabling these institutions to fulfill their academic and societal roles as intended (Ministry of Higher Education and Scientific Research, 2023). The Higher Education Development Projects Unit has contributed to the implementation of these projects in the following ways:

1. Creating New Interdisciplinary Programs

Under financing of 2.4 billion EGP, the unit has tracked and produced about 400 new interdisciplinary programs in Egyptian public universities. These initiatives seek to improve the quality of education by means of new systems in evaluation and instruction and by encouraging an excellence-based culture. The aim is to generate graduates who can enter the workforce and help to raise the self-financing capacity of universities, thereby enhancing their financial situation.

2. Project on Information Technology Development (ITP)

Egyptian public colleges received 2,500 licenses for the newest software—including Windows OS, Microsoft Office, Office 365 Pro Plus, and Microsoft Azure—through an arrangement with Microsoft. Furthermore, given to run the internet systems in these colleges were servers; technological institutes' informational infrastructure was automated and enhanced. Funding for this project came at 266 million EGP; it also included network security (firewalls) for public universities, data protection devices, and licensing for public institutions. Moreover, working with the Supreme Council for University Hospitals Automation, the unit offered technical help and oversight for the automation of university hospitals.

3. Laboratory Accreditation

Qualify labs for international accreditation received 63 million EGP overall. Six training cycles were carried out for 450 labs, comprising 117 contracted medical laboratories and 73 non-medical labs across several Egyptian universities. From the eighth to the thirteenth cycle, technical support and follow-up were given to 157 laboratories; 99 laboratories were totally handed over during this period, 63 non-medical and 30 medical laboratories were among the 93 accredited ones. Four projects in renewable energy sectors were approved, and technical evaluation was also carried out for laboratory projects in technological universities to qualify them for ISO 17025/2017 accreditation.

4. Project Support for Excellence

With financing of about 62 million EGP, 169 projects were carried out in Egyptian institutions. This comprised the founding of forty-five centers of excellence in services, education, and research spread throughout nineteen public institutions. Apart from the administrative system development in nine universities to attain ISO 9001/2015 certification, 91 creative student projects were sponsored in eighteen universities. Nine institutions additionally adopted nine creative ideas for enhancing students' practical and professional abilities and six applied research initiatives sponsored in cooperation with the labour market. Additionally funded were nine creative technical education student initiatives at newly established technological colleges.

5. Support of Accreditation and Quality Assurance

Sixty faculties received help to improve educational quality so that graduates satisfy job market criteria. The National Authority for Quality Assurance and Certification (NAQAA) also helped these faculties be ready for institutional and programmatic certification. Along with 80 academic programs by NAQAA, the project helped 107 faculties and higher institutions to be accredited. With financial support of 166 million EGP, four academic programs also underwent international accreditation by the German Agency for Quality Assurance (AQAS).

6. Measurement and Assessment Project

Along with 175 units in university departments, 27 measuring and evaluation centers were set up at public universities. Every year, almost 2,000 faculty members receive training in measurement and evaluation, including question banks, electronic testing, statistical analysis, survey design, test item production, and learning outcome assessment. The initiative was supported by 47 million EGPs.

7. Technological Institute Development

The initiative concentrated on building the digital infrastructure of technical colleges, offering technical help and advice, and giving all institutes—including technological universities—electronic grading tools. The project also ready these institutions for certification of quality and accreditation. Together with the industrial and commercial technical institutes in Mahalla and Alexandria, faculties of tourism and hotels in Mataria, Port Said, Alexandria, Mahalla, and Qena were built in cooperation with TVET. With financing of 94 million EGP, 20 new program rules were also developed for technological institutions, including laboratory and workshop equipment.

Utilizing comprehensive reforms in digital transformation, curriculum enhancement, international accreditation, and student involvement, the Ministry of Higher Education and Scientific Research has finally made notable progress in restructuring Egypt's higher education sector. Large expenditures in digital infrastructure and faculty development have laid a strong basis for a technologically advanced classroom. While Egyptian institutions' participation in global rankings shows growing international competitiveness, the development of labor market-oriented academic programs and research-industry partnerships has helped to better match higher education with economic needs. Furthermore, improving student participation, skill development, and global consciousness are student-centered learning approaches, innovative projects, and courses in line with the Sustainable Development Goals. These linked developments improve the quality of higher education and guarantee its alignment with national priorities and global issues, so promoting the growth of a knowledge-based economy in line with Egypt's Vision 2030 and a trained workforce. It is expected that the continuous implementation of High-Impact Practices in these fields will improve institutional excellence, graduate employability, and learning results in the next years.

V.Principal Challenges and Issues Facing Egyptian Higher Education

Notwithstanding the initiatives undertaken by the state and the Ministry of Higher Education in recent years to improve the quality of higher education, attain superior standings in international rankings, adapt to global transformations, and furnish graduates with the competencies requisite for the 21st century to satisfy the demands of both local and global labor markets, there persists a need for enhanced endeavors to address the issues, obstacles, and challenges confronting Egyptian higher education. These difficulties have been emphasized in papers from multiple international agencies, including the World Bank Report of 2010 and the UNESCO Report of 2022, along with studies undertaken by other researchers.

The 2010 World Bank/OECD report provides a thorough assessment of Egypt's higher education system, highlighting systemic issues in four primary areas (Organisation for Economic Co-operation and Development [OECD], 2010): educational inputs, instructional methods, learning outcomes, and labor market alignment. The analysis illustrates how these interrelated issues lead to the system's inefficacy and suggests avenues for substantial reform.

Regarding educational inputs, The analysis highlights considerable discrepancies in resource distribution among various fields and types of institutions. Although the medical, natural sciences, and veterinary disciplines uphold student-to-faculty ratios akin to premier global schools, the social sciences and humanities in public universities experience significant overcrowding that greatly surpasses international standards. Private colleges typically exhibit superior professor accessibility. However, vocational institutions continue to be inadequate in both public and private domains. The issues are intensified by pervasive infrastructure inadequacies since inadequately equipped facilities and overcrowded classrooms foster conditions that fundamentally hinder efficient teaching and learning.

The educational methods utilized in this limited framework exhibit similarly problematic trends. Egypt's higher education is marked by antiquated, content-laden courses that depend heavily on lecture-based, instructor-centered approaches. An excessive focus on rote memory prevails in classroom practices, significantly restricting the cultivation of critical thinking, problem-solving, and experiential learning skills. Assessment methods exacerbate these problems by emphasizing content retention over authentic evidence of competence, predominantly through standardized tests rather than project-based or practical assessments. Some prestigious private universities have commenced the adoption of progressive methodologies that include active learning tactics, collaborative work, and consistent feedback mechanisms. However, these practices are outliers rather than standard procedures.

The flaws in input and process are most prominently reflected in the system's learning outcomes. From 1995 to 2006, Egypt's higher education system generated 1.16 million additional graduates, exhibiting a pronounced imbalance in disciplinary distribution—80% concentrated in theoretical fields such as humanities and social sciences, whereas merely 19% engaged in applied disciplines like engineering or health sciences. Employer surveys routinely underscore graduates' shortcomings in critical soft skills such as communication, collaboration, adaptability, and problem-solving. The 2007 Quality Assurance and Accreditation Project survey corroborated these deficiencies, revealing that graduates were deficient in job-ready competencies, academic programs did not correspond with labor market demands, and institutions consistently overlooked critical feedback from essential stakeholders such as employers and alumni in curriculum development.

The primary outcome of these structural failings is the significant disparity between higher education outputs and labor market demands. Approximately 50% of university graduates are unable to obtain jobs in their respective sectors, particularly affecting graduates in the humanities (Arabic-track) and agriculture disciplines. Employers often express displeasure, indicating that although graduates may have technical expertise, they typically lack the essential soft skills required for success in the job. Structural inefficiencies within the education system intensify these issues, such as premature specialization in secondary education that constrains career flexibility, the lack of effective career guidance or graduate tracking systems, and centralized decision-making processes that hinder institutions from swiftly adapting to labor market signals. The lack of regular graduate destination surveys is not deemed an institutional obligation because of the controlled distribution of students. The absence of regular surveys of employer satisfaction with graduates is considered inconsequential, as decisions regarding the curriculum and student placement are determined centrally. Moreover, there is a deficiency of collaborative learning opportunities and cohesive work-based training.

Collectively, these elements contribute to a higher education system that fails to adequately perform its essential function in Egypt's human capital development and economic advancement.

The report delineates a thorough approach to transforming higher education in Egypt, emphasizing four principal pillars. The construction of a National Qualifications Framework (NQF) is advised to delineate explicit learning outcomes for each degree level, ensuring alignment with labor market requirements and integrating international best practices such as the European Credit Transfer and Accumulation System (ECTS). This involves improving quality assurance via consistent national academic benchmark evaluations and providing greater autonomy to well-managed institutions. Secondly, governance reform is essential, advocating for a transition from centralization to mission-oriented performance contracts between institutions and the government, underpinned by a national labor market observatory to guide decision-making. Third, institutional capacity building prioritizes transparency through the obligatory dissemination of performance data, faculty development initiatives, and the implementation of student-centered learning frameworks. Finally, the research emphasizes the significance of stakeholder engagement by integrating student and employer involvement in quality assurance systems, guaranteeing that academic programs are closely aligned with labor market demands while bolstering institutional accountability. All higher education institutions shall annually collect feedback from graduates regarding their satisfaction with the courses, as well as from employers regarding their satisfaction with the graduates, and publicly disclose the findings. Moreover, all higher education institutions should provide institutional mechanisms for students to assess courses and instructors. The findings should be employed in the evaluation of courses, instructional materials, and pedagogical approaches.

The Ministry of Higher Education and Scientific Research (2016) has recognized certain deficiencies in the Egyptian higher education system. A significant concern is the antiquated organizational systems in certain educational institutions, which fail to correspond with the rapid changes of contemporary society. Furthermore, there exists a relative stagnation in the variety of higher education services provided, along with an insufficient dispersion of these institutions throughout the country's governorates. The proliferation of students in theoretical faculties has been seen as an issue, alongside inadequate linkages between educational institutions and the labor market. The exclusive dependence on grades for admissions exacerbates these issues, constraining the assessment of student's capabilities and potential. There is an insufficiency of proper incentives to stimulate high-density human resources, coupled with ineffective strategies for recognizing and cultivating brilliant kids. The proportion of research disseminated in esteemed international journals remains minimal, further undermining the prestige of the higher education industry. Furthermore, the proportion of students dispatched overseas for education is inadequate, signifying a deficiency in international academic involvement. A significant disparity exists between the student-to-faculty ratio in Egyptian colleges and the international benchmarks established for several subjects. Financial resources pose a considerable difficulty, as numerous higher education institutions demonstrate insufficient funding and inflexible financial policies that fail to align with contemporary advancements. Moreover, the lack of a definitive policy on marketing research outcomes results in the underutilization of academic outputs. The absence of efficient tracking and communication protocols with graduates constrains the feedback essential for enhancing educational programs.

In addition to these weaknesses, the Ministry has also outlined the main challenges facing Egyptian higher education. A widening skill gap between labor market requirements and graduates' competencies represents one of the most pressing issues. The educational system has struggled to maintain an adequate response to modern demands, which is further complicated by the relative inadequacy of legislations, systems, and frameworks guiding higher education; a significant deficiency of accessible resources exists since numerous institutions fail to utilize their assets efficiently. Moreover, substantial shortcomings are present in the systematic monitoring of labor market indicators and educational statistics, resulting in discrepancies among various institutions. The national social and economic development plan is deficient in particular statistics concerning the distribution of investment volumes across economic activity in different areas and governorates, hence aggravating the issue. The inferior position of Egyptian higher education institutions globally underscores additional competitive weaknesses, particularly when other nations enhance the quality of their educational provisions. This has heightened competition in the global arena, exacerbating the ongoing brain drain and emigration of skilled professionals from Egypt, thereby jeopardizing the nation's developmental potential (Ministry of Higher Education, 2016).

The Tertiary Education Graduate Survey in Egypt 2021 exposes that graduates from higher education face major obstacles that prevent them from attaining their full potential. The high unemployment rate among university graduates—especially women—who have a 67.6% unemployed rate compared to 23.4% for men, therefore producing an overall unemployment rate of 41.8% (Roushdy, 2021). Furthermore, there is a clear education-occupation mismatch; almost 32% of graduates say their employment demand qualifications below university degree, mostly impacting men at 36.9%. Over half of graduates say their skills are not completely exploited, and female graduates show a worrisome 71.8% underutilization rate. Moreover, there is a notable gender pay disparity; female graduates earn roughly 18% less than male graduates, especially in industries like ICT and health where women earn only 33% and 58% respectively. About 70% of employed graduates say they are unhappy with their pay in comparison to their credentials, which drives many of them to look for other work for better pay and working circumstances (Roushdy, 2021). These results highlight how urgently Egypt's higher education system has to be changed to improve employability and guarantee that it significantly advances national and personal development.

The UNESCO (2022) report, based on a 2020 survey by Egypt's Ministry of Higher Education, outlines three significant challenges facing the digital transformation of Egyptian universities. Firstly, implementing online learning during the pandemic highlighted gaps in digital pedagogy, as most institutions replicated traditional teaching methods without adequate redesign. Only 15% of universities utilized online platforms pre-pandemic, indicating a need for professional instructional design support and extensive faculty training to enhance the quality of online courses. Secondly, limitations in digital infrastructure were noted, with past ICT development focusing on administrative automation rather than comprehensive e-learning ecosystems. The pandemic further illuminated the fragmentation of these systems. Lastly, the Smart University Transformation initiative seeks to assess universities' readiness for digital transformation, aiming to evaluate current capabilities and provide necessary training. However, challenges include varying institutional readiness and the need for substantial development in digital leadership. Collectively, these challenges underscore the necessity for coordinated efforts in pedagogy, infrastructure, and capacity building to effectively advance Egypt's digital education landscape.

Reports from the National Authority for Quality Assurance and Accreditation of Education (NAQAAE) indicate a substantial rise in the number of legally authorized higher education institutions. The quantity increased from 76 institutions in 2015 to 232, representing merely 26% of the total 903 higher education units. This number is significantly low, signifying that fewer than one-third of institutions have achieved accreditation. The very low certification rate underscores the pressing necessity for the Egyptian government and NAQAAE to investigate the underlying issues and obstacles that numerous institutions encounter in attaining accreditation. Confronting these issues is essential for formulating more effective methods and processes to motivate universities and colleges to seek and achieve accreditation successfully. Consequently, improving the overall quality and credibility of higher education in Egypt requires collaborative initiatives to remove obstacles and foster a culture of quality assurance throughout all institutions (El-Nashar, 2022).

In conclusion, the papers underscore systemic issues afflicting Egypt's higher education system on various fronts. Critical concerns encompass significant imbalances in resource distribution, characterized by overcrowded humanities departments and insufficient infrastructure, in stark contrast to the well-funded STEM disciplines. Obsolete, lecture-centric pedagogies prevail, prioritizing rote memorization rather than critical analysis, while evaluative systems inadequately assess practical skills. The system generates considerable disparities in graduation output, with 80% focusing on theoretical fields that do not align with labor market requirements, leading to a 50% jobless rate among graduates. Persistent governance issues arise from excessive centralization, inflexible curricula that do not align with employer requirements, and the lack of graduate tracking tools. Digital transformation encounters obstacles in pedagogical adaption, infrastructural deficiencies, and inconsistent institutional preparedness, with merely 26% of institutions attaining NAQAAE accreditation. The linked difficulties, including input inadequacies, pedagogical inefficiencies, skills mismatches, and governance rigidities, cumulatively impair the system's ability to cultivate human capital and address Egypt's socioeconomic development requirements. Thorough reforms, including qualification frameworks, institutional autonomy, stakeholder involvement, and quality assurance systems, are essential to synchronize higher education outcomes with labor market demands and worldwide norms.

Alongside these foreign assessments and several official investigations, some research works illuminate the considerable issues confronting higher education in Egypt. Biltagy (2012) analyzed the quality of education in Egypt, emphasizing the correlation between various inputs and outputs as factors influencing educational quality. He recognized inputs, including infrastructure, resources, school climate, teacher training, curriculum, and socio-economic backgrounds, as essential elements. In contrast, outputs were evaluated via student performance assessments. Biltagy determined that the general quality of education in Egypt was subpar and inconsistently allocated throughout various locations, claiming that deficiencies in resources and institutional frameworks impeded student success. He emphasized various concerns about internal efficiency, such as deficient school infrastructure, overcrowded classrooms, unqualified educators, inadequate school facilities, and inferior educational resources (Biltagy, 2012).

Dahshan (2013) undertook a study to assess the Egyptian education system, particularly the compatibility of its curriculum with societal requirements. The results revealed that the higher education curriculum primarily mirrored foreign systems, neglecting the unique needs of Egyptian society. Consequently, the program failed to sufficiently address profession selection methodologies pertinent to local circumstances. Dahshan presented a framework highlighting the disparities between the job market and the provisions of the Egyptian educational system, underscoring the pressing necessity for enhancement in higher education quality. The studies by Loveluck and Loveluck and East (2012) aimed to assess the compliance of Egyptian universities with international higher education norms. Their findings indicated that merely 10% of universities in Egypt adhered to the mandated national requirements, predominantly within state institutions, whereas numerous private colleges failed to meet the established criteria for higher education.

Salah and Shafee (2020) propose various strategies to improve the quality of higher education in Egypt. It underscores the necessity of aligning the National Academic Reference Framework with the college's objective and establishing a specialized department for educational quality assurance. The study advocates for the creation of educational programs aligned with labor market demands, in conjunction with the declaration and documenting of pedagogical practices. It advocates for the revision of curricula to improve students' self-directed learning abilities and for the establishment of policies to tackle issues such as overcrowded classrooms, resource deficiencies, inadequate faculty, dependence on private tutoring, scarcity of scientific references, and low student attendance. Furthermore, the study recommends the establishment of field training programs for students to ensure consistency with the quality of educational curricula and specific learning objectives. It underscores the necessity for systems to guarantee that examinations and assessment methodologies are aligned with learning outcomes and that equity is upheld. Furthermore, it recommends administering surveys to assess students' satisfaction with educational efficacy, grievance procedures for examinations, and the sufficiency of material resources for student activities. The study emphasizes the necessity of enhancing the educational environment by providing classrooms, equipped laboratories, and specialized scientific libraries, as well as developing innovative evaluation methods for students and instructors. Ongoing training for all university personnel is crucial for cultivating behaviors and abilities that foster continuous performance enhancement and quality improvement.

A recent study by Husnul Haq highlights that, while the increased accessibility to higher education in Egypt, the quality of education continues to be a major issue (Husnul Haq, 2020). The study indicates that existing policies have failed to sufficiently resolve the disparity between graduates' competencies and the requirements of contemporary sectors, a significant concern impacting employability and economic development.

Mahmoud's study (2021) indicates that the Egyptian state has made substantial advancements in the geography of higher education, emphasizing equality and the spatial distribution of its institutions while also striving to align them with the demands of economic and social development as articulated in "Egypt Vision 2030." Furthermore, there is an initiative to attain favorable positions in international university rankings. Notwithstanding these measures, Egypt must enhance its emphasis on the geography of higher education, as evidenced by the following points: The enrollment rate in higher education in Egypt is roughly 38%, necessitating more efforts to attain the percentages observed in other nations. For Egypt to attain the principles of accessibility and equality in higher education, its institutions must enhance their contributions to the realization of economic and social development objectives and address their requirements. They must be prioritized in agendas for support and growth, ensuring adequate freedom and flexibility to navigate society and address its requirements. Moreover, the landscape of global university rankings reveals a deficiency and maybe an absence of representation among the top

500 universities in certain years, as well as a restricted number of institutions within the top 1000. An examination of worldwide higher education systems indicates that Egypt is classified as a peripheral nation, striving to evolve incrementally from a peripheral to a central status through its initiatives. This necessitates a clear vision, resolute determination, and exemplary management to assume responsibility for the planning of development and transformation initiatives into world-class universities.

In conclusion, the Egyptian state must prioritize educational policy discourse and create a conducive climate for universities to fulfill the requisite economic and social development goals and drive innovation. Achieving visibility in global university rankings is essential, particularly as Egypt possesses numerous qualifications that render it capable of competing with leading nations in higher education. These encompass its substantial cultural inheritance relative to numerous nations, its illustrious history and culture that render it a global focal point, and its esteemed Egyptian human resources dispersed throughout, which have transformed nations and facilitated the rebirth of others. This demonstrates the brilliance of the Egyptian character when afforded appropriate conditions, environment, and resources (Mahmoud, 2021).

VI. Conclusion

The Egyptian higher education system is at a pivotal juncture, presenting both potential and challenges. Despite initiatives such as digital transformation, curriculum modernisation, and international accreditation reflecting the government's commitment to progress, persistent issues including resource disparities, antiquated teaching methodologies, and a disconnect between graduates' competencies and labour market demands continue to pose significant challenges. The implementation of Egypt Vision 2030, together with the use of diverse, innovative, and sustainable approaches, delineates a framework for future development. Achieving these aims will require tackling centralisation, enhancing faculty development, and fortifying connections between academics and industry. Egypt can ensure that its higher education system meets global standards while fostering socioeconomic development and enabling future generations to thrive in an increasingly competitive landscape by prioritising these areas.

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