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OPPORTUNITIES FOR ENSURING THE FINANCIAL SUSTAINABILITY OF HIGHER EDUCATION INSTITUTIONS THROUGH ENDOGENOUS FACTORS

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Abstract

This article examines the role and possibilities of endogenous (internal) factors in ensuring the financial stability of higher education institutions (HEIs). Dividing the factors that affect financial stability into endogenous and exogenous groups, the author analyses the mechanisms by which stability can be achieved specifically through the internal factors that an institution itself controls — revenue diversification, the effectiveness of financial management, human capital, educational quality and reputation, research and innovation activity, cost optimization, digital transformation, endowment funds, and governance. The study argues that endogenous factors form the long-term and durable basis of financial stability, but that they take effect only in an inseparable connection with exogenous factors. International experience and practical recommendations for the conditions of Uzbekistan are presented.

Keywords: higher education institution, financial stability, endogenous factors, revenue diversification, financial management, endowment fund, human capital, autonomy, cost optimization.

ENDOGEN OMILLAR ORQALI OLIY TA'LIM MUASSASALARINING MOLİYAVIY BARQARORLIGINI TA'MINLASH IMKONIYATLARI

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Annotatsiya

Mazkur maqolada oliy ta'lim muassasalari (OTM)ning moliyaviy barqarorligini ta'minlashda endogen (ichki) omillarning o'rni va imkoniyatlari tadqiq etilgan. Moliyaviy barqarorlikka ta'sir etuvchi omillar endogen va ekzogen guruhlariga ajratilib, muassasaning o'zi tomonidan boshqarilishi mumkin bo'lgan ichki omillar — daromad manbalarini diversifikatsiya qilish, moliyaviy boshqaruv samaradorligi, inson kapitali, ta'lim sifati va universitet obro'si, ilmiy-tadqiqot hamda innovatsion faoliyat, xarajatlarni optimallashtirish, raqamli transformatsiya, endowment jamg'armalari va korporativ boshqaruv orqali moliyaviy barqarorlikni ta'minlash mexanizmlari tahlil qilingan. Tadqiqot natijalari shuni ko'rsatadiki, endogen omillar moliyaviy barqarorlikning uzoq muddatli va mustahkam asosini shakllantiradi, biroq ular o'z samarasini faqat ekzogen omillar bilan uzviy uyg'unlikda namoyon etadi. Maqolada xalqaro

tajriba tahlil qilinib, O‘zbekiston sharoitida oliy ta’lim muassasalarining moliyaviy barqarorligini mustahkamlash bo‘yicha amaliy tavsiyalar ishlab chiqilgan.

Kalit so‘zlar: oliy ta’lim muassasasi, moliyaviy barqarorlik, endogen omillar, daromad manbalarini diversifikatsiya qilish, moliyaviy boshqaruv, endowment jamg‘armasi, inson kapitali, avtonomiya, xarajatlarni optimallashtirish.

ВОЗМОЖНОСТИ ОБЕСПЕЧЕНИЯ ФИНАНСОВОЙ УСТОЙЧИВОСТИ ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЙ ПОСРЕДСТВОМ ЭНДОГЕННЫХ ФАКТОРОВ

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Аннотация

В данной статье исследуются роль и возможности эндогенных (внутренних) факторов в обеспечении финансовой устойчивости учреждений высшего образования (УВО). Факторы, влияющие на финансовую устойчивость, разделены на эндогенные и экзогенные группы. Особое внимание уделено анализу механизмов обеспечения финансовой устойчивости за счет внутренних факторов, находящихся под непосредственным контролем самого учреждения, включая диверсификацию источников доходов, эффективность финансового менеджмента, человеческий капитал, качество образования и репутацию университета, научно-исследовательскую и инновационную деятельность, оптимизацию расходов, цифровую трансформацию, эндаумент-фонды и корпоративное управление. В статье обосновывается, что именно эндогенные факторы формируют долгосрочную и устойчивую основу финансовой устойчивости учреждения, однако их эффективность проявляется только в неразрывной взаимосвязи с экзогенными факторами. На основе анализа международного опыта предложены практические рекомендации по укреплению финансовой устойчивости учреждений высшего образования в условиях Узбекистана.

Ключевые слова: учреждение высшего образования, финансовая устойчивость, эндогенные факторы, диверсификация источников доходов, финансовый менеджмент, эндаумент-фонд, человеческий капитал, автономия, оптимизация расходов.

Introduction

Under contemporary conditions, higher education systems face numerous challenges — global competition, demographic change, the contraction of state financing, and economic uncertainty. For this reason, ensuring the financial stability of higher education institutions (hereinafter HEIs) has acquired strategic significance not only for each institution but for the entire education system and the national economy. Financial stability is the ability of an HEI to meet its obligations on time, operate without interruption, develop, and withstand external influences.

Traditionally, in many countries, including Uzbekistan, higher education has been financed mainly from the state budget. However, excessive dependence on public finance makes HEIs vulnerable to external economic and political factors. Under conditions of budget contraction or macroeconomic instability, such institutions may fall into financial crisis. For this

reason, in recent decades both scholarship and practice have increasingly stressed the need to rely on an institution's internal capacities — its endogenous factors.

The relevance of the topic is determined by several considerations. First, intensifying competition in the global education market requires financial independence from institutions. Second, reducing dependence on the state budget and adapting to the market environment is on the agenda. Third, mobilizing internal capacities in a systematic way ensures not only financial stability but also the growth of educational quality and academic potential. It is precisely for these reasons that studying endogenous factors as an integrated system carries both theoretical and practical significance.

The principal aim of the article is to answer, on a reasoned basis, the scholarly question "Is it possible to ensure the financial stability of higher education institutions through endogenous factors?" and to reveal the composition, mechanism of action, and effectiveness of these factors. The tasks addressed are to clarify the theoretical essence of HEI financial stability, to classify endogenous and exogenous factors, to analyse the main endogenous factors, to study international experience, and to develop recommendations for Uzbekistan.

The scientific novelty of the study consists in the following. First, the endogenous factors of HEI financial stability are examined not in isolation but as a single, interacting system in which each factor reinforces the others. Second, on this basis the article proposes a synergistic "virtuous cycle" and a seven-stage management mechanism that link these factors into a continuous process rather than a static list. Third, the framework is adapted to the reform context of Uzbekistan and translated into a differentiated, phased set of recommendations. In this way the study moves beyond the largely descriptive treatment prevailing in the literature toward an integrated, mechanism-oriented view of endogenous financial sustainability.

Degree of study of the topic and literature review

Questions of higher education finance and HEI financial stability have been widely studied in the world scholarly literature. In particular, B. Clark, in his concept of the "entrepreneurial university," argued that universities can create an independent financial basis by broadening their revenue sources and developing academic entrepreneurship. On this view, a strong steering core, developed peripheral structures, and a diversified funding base ensure a university's adaptability to a changing environment.

Within resource dependence theory, J. Pfeffer and G. Salancik hold that an organization's dependence on external resource sources increases its vulnerability, and that diversifying the resource base is therefore of strategic importance. From the standpoint of financial management, HEI financial stability is assessed through liquidity, solvency, the balance of revenue and expenditure, and the availability of reserve funds.

The works of national scholars likewise address improving education financing, raising the financial independence of HEIs, and broadening revenue sources. The general conclusion is that most researchers regard the mobilization of internal capacities as a priority direction for achieving financial stability; however, there is as yet no full consistency in analysing endogenous factors as an integrated system and in demonstrating their interaction. This article is directed precisely at filling that gap.

These approaches, however, emphasize different and only partially overlapping mechanisms, and each has its limitations. Clark's entrepreneurial-university concept convincingly explains revenue expansion and academic entrepreneurship, but pays less attention to the financial-management and control processes through which diversified income is actually stabilized. Resource dependence theory (Pfeffer and Salancik) accurately captures the risks of external dependence, yet treats the internal capacities that reduce that dependence largely as a "black box." The financial-management approach, for its part, offers precise indicators of liquidity and solvency, but tends to view them statically, apart from the strategic and governance factors that generate them. National studies, meanwhile, mostly consider individual income sources separately rather than as an interacting system.

Proceeding from this critical comparison, the present study adopts an integrative position: it treats revenue diversification, financial management, human capital, reputation, research, digitalization, endowment and governance not as alternative explanations but as complementary elements of a single endogenous system whose effect is synergistic rather than merely additive. The author's approach therefore combines the resource logic of Clark and of resource dependence theory with the institutional-governance perspective, and it is precisely the interaction of these factors — rather than any one of them taken alone — that the article seeks to model.

Research methodology

In terms of research design, the study is qualitative and conceptual-analytical. Because its aim is to reveal the composition, interaction and mechanism of the endogenous factors of HEI financial stability — a question that is theoretical and structural rather than statistical in nature — a qualitative design based on the systematization and generalization of existing knowledge was chosen in preference to a purely quantitative one. This choice is dictated by the object of study: the interaction of internal factors is a systemic relationship that is captured more adequately through conceptual modelling than through the isolated measurement of separate variables.

The information base of the study comprises three groups of sources: (a) the international scholarly literature on higher-education finance and financial sustainability, including the works of B. Clark, J. Pfeffer and G. Salancik and other authors; (b) analytical and statistical materials of international organizations and university associations, in particular OECD Education at a Glance data and the NACUBO–Commonfund studies of university endowments; and (c) the normative documents and reform measures shaping the financial autonomy of higher education in Uzbekistan. These sources were selected for their authority, comparability and direct relevance to the research question.

The following research methods were applied: systems analysis and classification, used to divide the factors of financial stability into endogenous and exogenous groups and to order the endogenous factors themselves; comparative analysis, used to juxtapose theoretical approaches and international models of university financing; logical-structural analysis, used to construct the "virtuous cycle" and the seven-stage mechanism; and generalization and synthesis, used to derive recommendations for the conditions of Uzbekistan. Tables and

conceptual schemes serve as the principal instruments for presenting and systematizing the results.

It should be emphasized that the empirical figures cited below are used in an illustrative capacity — to substantiate the theoretical arguments rather than to test a formal hypothesis. A recognized limitation of the chosen design is thus the absence of an econometric estimation of the strength of each factor; overcoming this limitation, through the collection of institution-level financial data and quantitative modelling, is defined as a direction for further research.

Theoretical foundations of HEI financial stability

Financial stability is a multidimensional concept that cannot be expressed by a single indicator. In a general sense, HEI financial stability is the institution's ability, over a given period, to cover current and development expenditures from its own revenues and reserves, to fulfil its financial obligations, and to withstand adverse external influences. It is not a static condition but a dynamic equilibrium that requires continuous management. Table 1 sets out its principal constituent dimensions.

Table 1

Principal dimensions of financial stability

Dimension	Meaning
Liquidity	Sufficient cash to meet short-term obligations on time
Solvency	Ability to meet long-term obligations; financial resilience
Revenue stability	Reliability, low volatility and predictability of income streams
Balance of revenue & expenditure	Expenditure not exceeding revenue; surplus or balanced budget
Reserves & accumulations	A financial "cushion" against unexpected situations
Investment capacity	Free resources channelled into development and renewal

When these dimensions function as an integrated system, an HEI not only sustains its current activity but gains the capacity for long-term development. Financial stability is, moreover, connected with educational quality and academic potential in a mutually reinforcing relationship: stable finances secure quality education, and quality education attracts more students and revenue.

Approaches to financial stability

Several approaches to financial stability exist in the literature. The static approach evaluates stability as the equilibrium of financial indicators on a given date. The dynamic approach regards stability as a process of equilibrium maintained and restored over time. The resource approach takes the scale and degree of diversification of the resource base as the main criterion. The institutional approach treats the quality of governance, autonomy, and

strategic-planning capacity as decisive. These approaches do not exclude but complement one another, together producing a comprehensive picture of financial stability.

Indicators for assessing financial stability

A number of quantitative and qualitative indicators are used to determine the level of financial stability. They allow management to assess the current situation objectively and to identify risks in good time. The principal indicators are summarized in Table 2.

Table 2

Indicators for assessing financial stability

Indicator	What it measures
Revenue diversification ratio	Share and balance of individual sources in total revenue
Financial independence ratio	Share of off-budget income in total revenue
Current liquidity	Ratio of short-term assets to short-term liabilities
Reserve adequacy	Extent to which free reserves cover monthly/annual expenditure
Cost coverage ratio	Ratio of revenue to current expenditure
Investment activity	Share of expenditure directed to development
Per-student revenue & expenditure	Revenue and cost per enrolled student

Regularly monitoring these indicators is an integral part of managing endogenous factors, because without them the effectiveness of the decisions taken cannot be objectively assessed.

Endogenous and exogenous factors of financial stability

All the factors affecting HEI financial stability may be divided into two large groups: exogenous (external) and endogenous (internal). The principal criterion of this classification is the degree to which the institution can influence the factor in question. Figure 1 depicts this division schematically.

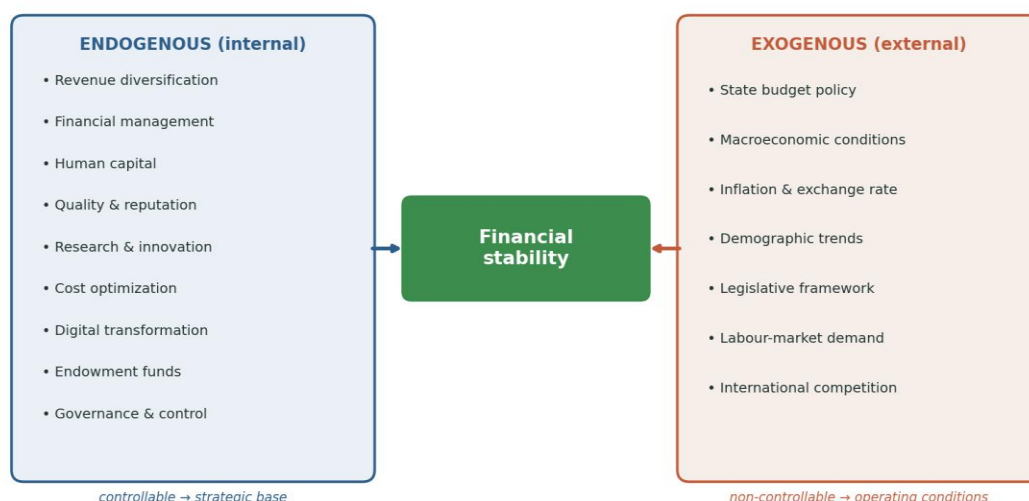


Figure 1. Endogenous and exogenous factors feeding financial stability.

Exogenous factors are formed outside the institution and lie beyond its direct control. They include state education and finance policy, the volume of budget financing, macroeconomic indicators (inflation, exchange rate, growth), the demographic situation, the legislative framework, labour-market demand, and the international competitive environment. An HEI cannot change these factors but can pursue an adaptive strategy that takes them into account.

Endogenous factors are connected with the institution's internal activity, governance and resources — factors that the HEI itself can control, change and develop. Their principal advantage is that the institution can improve its financial position by mobilizing its internal capacities without waiting for the external environment to change. It is precisely this property that makes endogenous factors the strategic basis for ensuring financial stability. Table 3 contrasts the two groups.

Table 3.

Comparative classification of factors affecting financial stability

Criterion	Endogenous (internal)	Exogenous (external)
Control	Institution controls fully or partly	Beyond the institution's control
Source	Internal activity, governance, resources	External environment, state, market
Examples	Revenue diversification, management, reputation, endowment	Budget policy, inflation, demography, legislation
Duration of effect	Medium- and long-term, stable	Often short-term, volatile
Strategic role	Internal basis of stability	Conditions and constraints of activity

As the table shows, the principal advantage of endogenous factors is that they are managed by the institution and exert a long-term, stable effect. Exogenous factors define the conditions of activity, and although they must be reckoned with, the institution cannot change them. Each endogenous factor is analysed in detail below.

Analysis of the endogenous factors

The endogenous factors identified above may be systematized as in Table 4, which links each factor to its nature and its financial effect. The paragraphs that follow discuss the most important of them in turn.

Table 4.

Endogenous factors: nature and financial effect

Factor	Nature	Financial effect
Revenue diversification	Spreading income across independent sources	Reduces risk, stabilizes revenue
Financial management	Planning, budgeting, control, risk management	Identifies reserves, prevents waste
Human capital	Qualified faculty and researchers	Grants, commercialization, reputation
Quality & reputation	Educational quality and institutional standing	Attracts students, partners, donors
Research & innovation	Grants, contracts, commercialization	Off-budget income, development
Cost optimization	Efficient use of resources	Higher surplus, resilience
Digital transformation	Automation and digital products	Lower costs + new revenue
Endowment funds	Invested capital generating income	Stable, autonomous income stream
Governance & control	Strategic steering, audit, transparency	Coordinates all factors, prevents loss

Revenue diversification

Revenue diversification is the most influential of the endogenous factors. Dependence on a single source (for example, the state budget or contract payments alone) increases financial risk: if that source contracts, the whole institution falls into crisis. Diversification reduces risk and raises stability by distributing income across several independent sources. Possible sources include contract tuition; research grants and contracts; expert and consulting services; commercialization of intellectual property (patents, licences); supplementary education and professional-development courses; online education products; use of institutional property (rent, dormitories, infrastructure); philanthropy and sponsorship; and

endowment income. The more proportionally these sources are distributed, the more financially resilient the institution.

In pursuing diversification, an institution must take account of its strengths and of market opportunities. A university with a strong engineering school may earn additional income through industry research contracts; a medical institution, through clinical services and professional-development programmes. Importantly, each source must reinforce, not contradict, the institution's core mission. Determining the optimal degree of diversification is also a strategic task: excessive dispersion scatters resources, while excessive concentration raises risk.

A simple illustrative calculation shows the effect of diversification on revenue risk. Suppose an institution relies on a single income source whose annual revenue fluctuates with a standard deviation of, say, 20 per cent of its mean. If the same total revenue is instead spread across four sources of comparable size whose fluctuations are weakly correlated, then — by the statistical rule for combining independent variables — the volatility of total revenue falls roughly by half, to about 10 per cent. Although the figures here are conditional, the logic is general: broadening the revenue base reduces the sensitivity of the budget to a shock in any single source, and it is this reduction in variance, rather than any rise in the average level of income, that constitutes the core financial benefit of diversification.

Financial management and budgeting

Even an institution with large revenue may face financial difficulty as a result of ineffective management. Financial management — the planning of revenue and expenditure, budgeting and control, risk management, and the rational allocation of resources — allows internal reserves to be identified, waste to be prevented, and the effectiveness of every unit of expenditure to be raised. A modern approach requires the introduction of performance-based budgeting, internal audit, and financial analysis and forecasting, which enable the institution to monitor its position in real time, anticipate potential crises, and act in good time. Financial transparency and accountability, in turn, build trust and make it easier to attract additional resources.

Human capital, quality, research and innovation

A university's principal asset is its human capital — qualified faculty, researchers and administrators. High-potential faculty not only raise educational quality but become a direct source of revenue by attracting research grants, commercializing research, and enhancing institutional reputation. Investment in human capital is therefore a strategic investment in financial stability, and retaining qualified staff and preventing brain drain depend directly on the quality of internal governance.

Educational quality and reputation, though not direct financial indicators, are endogenous factors with a powerful financial effect: a reputable HEI attracts more and more capable students, raises demand through the labour-market standing of its graduates, and wins the confidence of partners, sponsors and grant-makers. Research and innovation activity — grant projects, contract research, commercialization, spin-offs and technology transfer — provides both reputation and an independent revenue source, and is the basis of the entrepreneurial-university model. Developing it requires appropriate internal infrastructure

(technology parks, incubators, transfer offices), incentive mechanisms, and industry partnerships.

Cost optimization, digitalization and endowment funds

Financial stability is secured not only by raising revenue but by managing expenditure rationally. Cost optimization means reducing inefficient spending without harming educational and research quality, using resources productively, and achieving economies of scale. Importantly, cost reduction must be strategic and must not cut spending that serves development (research, staff, infrastructure), since inappropriate economy leads in the long run to declining quality and reputation and, ultimately, to falling revenue.

Digital transformation has become an important endogenous factor that both reduces costs and creates new revenue. Electronic document flow, management information systems and process automation significantly cut administrative costs, while online courses, distance programmes and digital products attract audiences beyond geographic boundaries. Endowment funds — invested capital whose investment income alone is used while the principal is preserved — create a stable, long-term income stream independent of state and contract revenue. The world's leading universities withstand economic crises precisely thanks to strong endowments. Endowments are formed from philanthropy, alumni support, sponsorship and investment activity, and their development requires a legal base, reliable governance and an investment culture.

A tenth factor, closely related to the others, is the student contingent and marketing activity. Because the number and composition of students is the main source of revenue for most HEIs, attracting and retaining students is itself an important endogenous factor. Effective marketing, the alignment of programmes with labour-market demand, quality student services and the reduction of dropout rates all secure a stable revenue stream, while maintaining long-term ties with graduates reinforces both reputation and philanthropic sources. Finally, governance and internal control act as the unifying element that binds all endogenous factors together: strong strategic steering, clear objectives, transparent decision-making and results-oriented leadership direct all of the institution's resources toward the single goal of financial stability, while internal audit ensures the efficient use of funds and prevents waste and loss.

The mechanism of ensuring financial stability

The endogenous factors analysed above yield the greatest effect not in isolation but when they operate as an integrated system. Their interaction is synergistic: strengthening human capital raises educational quality and research; these raise reputation; reputation attracts more students, grants and donors; this diversifies the revenue base; diversified revenue fills the endowment fund and enables investment in development. Effective financial management and digital governance ensure that the whole system operates optimally. Figure 2 depicts this virtuous cycle.

The virtuous cycle of endogenous factors

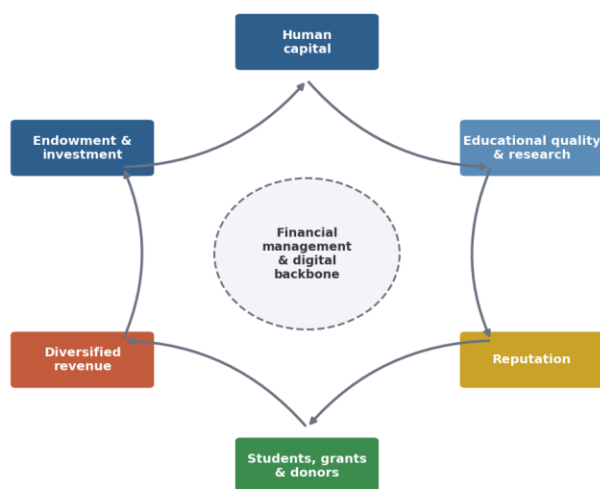


Figure 2. The virtuous cycle of endogenous factors.

The mechanism may be represented as a sequence of stages: analysing internal capacity and setting strategic goals; expanding and diversifying revenue; financial management and cost optimization; investing in human capital, quality and reputation; commercializing research and innovation; building reserves and endowment funds; and monitoring results and continuously improving the system. Figure 3 sets out these seven stages.

The seven-stage mechanism

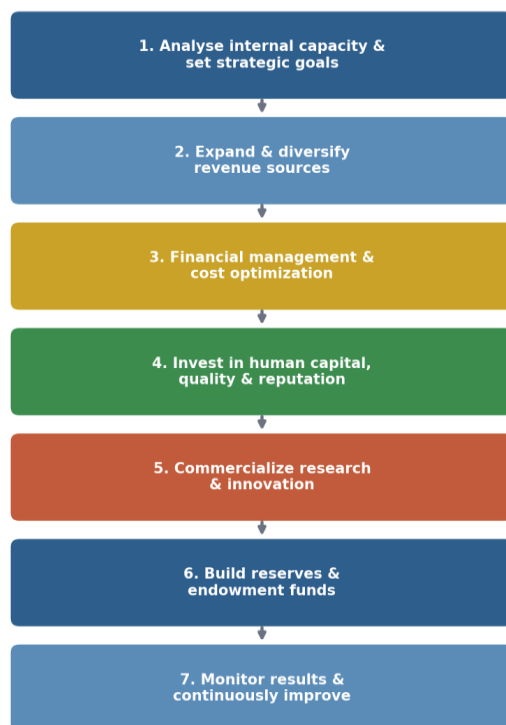


Figure 3. The seven-stage mechanism.

It is precisely this continuous cycle that allows an HEI to preserve financial resilience regardless of the uncertainty of the external environment. At the same time, the effectiveness of endogenous factors depends on the degree of the institution's autonomy: if an institution cannot manage its own revenue independently or plan expenditure freely, the potential of endogenous factors is constrained. Financial and managerial autonomy is therefore a necessary condition for endogenous factors to work. For the mechanism to succeed, the institution must have a long-term strategic plan with clear, measurable financial goals; strategic planning turns endogenous factors from scattered actions into systematic activity directed at a single objective.

Equally important is the regular monitoring of the mechanism's effectiveness and the adaptation of the strategy to results. Financial stability should be regarded not as a one-off achievement but as a continuous management process. The institution must track its financial indicators, evaluate the return on each activity, and adjust its priorities as circumstances change. In this sense the mechanism is a learning system: each cycle generates information that improves the next. Where governance is weak or planning is absent, the same endogenous factors that could reinforce one another instead work at cross purposes, dissipating rather than compounding their effect. The quality of governance thus determines whether the cycle in Figure 2 is virtuous or merely potential.

International experience

The experience of the world's leading universities vividly demonstrates the role of endogenous factors in financial stability. The prestigious universities of the United States and the United Kingdom can operate stably even in periods of reduced state funding thanks to large endowment funds built up over many years; their revenues are distributed proportionally among contract payments, research grants, commercialization, philanthropy and investment income. Table 5 summarizes the principal models.

Table 5.

Comparative international experience.

Region / model	Characteristic features
USA / UK	Large endowments, highly diversified revenue, philanthropy and investment income
Continental Europe	Academic entrepreneurship, industry collaboration, international education services
Asia (Singapore, S. Korea)	State support combined with expanded financial autonomy and independent resource management

The general lesson is that the institutions that have achieved stability are those that have actively mobilized internal capacities and diversified their revenue base. Continental European universities raise off-budget income through academic entrepreneurship, industry collaboration and international education services, while Asian countries combine state support with broadened autonomy and the delegation of independent resource management to universities.

These models are also borne out by quantitative data. According to the NACUBO–Commonfund study, in fiscal year 2024 the endowments of 658 US colleges and universities exceeded 870 billion US dollars in aggregate; the largest of them — Harvard (about 52 billion) and Yale (about 41 billion US dollars) — enable their institutions to finance a substantial part of current expenditure from investment income, of which roughly four to five per cent is typically drawn each year. At the system level, OECD data likewise show a marked role for non-state sources: across OECD countries in 2022, almost one-third of the funding of tertiary institutions came from private rather than public sources. These figures demonstrate empirically that a diversified, partly endogenous revenue base is characteristic precisely of the most financially resilient higher-education systems.

Application in the conditions of Uzbekistan

Within the reform of the higher education system in Uzbekistan, important steps are being taken to broaden the financial and managerial autonomy of HEIs, diversify revenue sources and raise financial independence. In these conditions, reliance on endogenous factors is especially relevant, since the task of reducing dependence on the state budget and adapting institutions to the market environment has been set. At the same time, a number of constraints remain: a shortage of qualified financial-management staff, a legal base for endowment funds that is only now taking shape, and limited experience in converting commercialization and research into revenue. Table 6 juxtaposes the opportunities and constraints and the corresponding recommendations.

Table 6.

Uzbekistan: opportunities, constraints and recommendations.

Opportunities / recommendations	Constraints to address
Broaden financial and managerial autonomy step by step	Shortage of financial-management capacity
Diversify revenue: grants, expertise, commercialization, online services	Emerging legal base for endowments
Develop the legal and institutional base for endowment funds	Limited commercialization experience
Introduce performance-based budgeting, internal audit and analysis	Sensitivity of contract income to ability to pay
Invest in human capital and retain qualified staff	Underdeveloped reserve base
Use digital transformation to cut costs and create revenue	Uneven institutional readiness

The realization of endogenous factors should therefore proceed gradually, on the basis of a systematic approach. The consistency of reforms and the broadening of institutional autonomy are the key factors of this process.

For practical implementation, these recommendations may be ordered by priority and time horizon. In the short term (immediate priority), the focus should fall on measures that require mainly managerial rather than legislative change — introducing performance-based budgeting, internal audit and financial analysis, and training or attracting qualified financial-management staff. In the medium term, the emphasis shifts to broadening and diversifying revenue (grants, expertise, commercialization and online services) and to strengthening the digital infrastructure that lowers costs and creates new income. In the long term, the development of the legal and institutional base for endowment funds and the accumulation of reserve capital come to the fore, since these require a mature legal framework, an investment culture and sustained trust. The implementation mechanism should combine the state level — where the legal base for autonomy and endowments is created — with the institutional level, at which each HEI adopts its own financial-sustainability strategy with measurable targets and monitors progress through the indicators set out in Table 2. Sequencing the measures in this way turns a list of recommendations into a manageable, staged programme of action.

Risks and constraints in realizing endogenous factors

Although the potential of endogenous factors is great, realizing them in practice is bound up with a number of risks and constraints. First, the drive to diversify revenue may divert the institution from its core mission of teaching and research and lead to excessive commercialization; a balance between academic values and commercial interests must be preserved. Second, the effectiveness of endogenous factors depends on autonomy: where financial and managerial freedom is limited, internal capacities cannot fully operate. Third, building endowment and reserve funds requires time and trust, and their investment income may depend on market fluctuations.

Fourth, a shortage of qualified financial managers slows internal reform. Fifth, inappropriate cost-cutting or excessive commercialization may damage educational quality and reputation and, in the long run, reduce revenue. A systematic, balanced and strategic approach is therefore required in managing endogenous factors. Taking these risks into account makes a strategy based on endogenous factors more robust and stable.

Conclusion

The analysis conducted allows a generally affirmative answer to the question “Is it possible to ensure the financial stability of higher education institutions through endogenous factors?” Endogenous factors — revenue diversification, effective financial management, human capital, educational quality and reputation, research and innovation, cost optimization, digital transformation and endowment funds — form the durable, long-term basis of financial stability. Their principal advantage is that an institution can improve its financial position by mobilizing its internal capacities without waiting for external conditions to change.

At the same time, endogenous factors do not operate in complete isolation from exogenous ones. Financial stability is the result of the interaction of endogenous and exogenous factors: the external environment (state policy, macroeconomic stability, the legal base, the degree of autonomy) creates the conditions necessary for endogenous factors to be realized. Endogenous factors are therefore a necessary, but in some cases not sufficient, condition of financial stability.

In conclusion, to achieve financial stability a modern HEI must manage its internal capacities — its endogenous factors — systematically and continuously, diversify its revenue base, introduce effective financial management, and form long-term accumulation mechanisms. It is precisely a balanced strategy grounded in internal capacities but attentive to the external environment that secures the stable and competitive development of HEIs. For practical application, each institution should assess its endogenous factors in light of its own characteristics and define priority directions. Future research might measure the effect of endogenous factors quantitatively, conduct comparative analysis across different types of HEI, and develop a system of concrete indicators.

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