

Reforming Pension Payments in Higher Education Institutions: A Study of the Defined Benefit Pension System in Pakistan

Mir Muhammad Shaikh¹, Muhammad Moinuddin Qazi Abro²,
Shah Muhammad Kamran³ and Arabella Bhutto⁴

<https://doi.org/10.62345/jads.2025.14.3.134>

Abstract

The Defined Benefit (DB) pension system operates under a Pay-As-You-Go (PAYG) framework, providing guaranteed post-retirement income and family pension benefits to Government Employees worldwide. However, rising pension liabilities, demographic shifts, and limited fiscal space have rendered the system financially unsustainable. Pakistan is not out of this problem, and Higher Education Institutions (HEIs) are particularly affected, as an increasing proportion of their recurrent grants is diverted toward pension obligations, constraining academic and developmental activities. While global pension reforms are well documented, the perspectives of operational pension administrators within Pakistan's HEIs remain largely unexplored. This study investigates sustainable reforms to optimise the DB pension payment system in HEIs. A qualitative multiple-case study design was used, including in-depth interviews with directors of finance, pension officers, auditors, and members of the HEC Board of Governors (BoG), supported by an extensive literature review. Using thematic analysis, both pre-empirical (literature-driven) and post-empirical (field-driven) frameworks were developed, identifying 25 additional mechanisms for controlling pension payments. The study proposes a comprehensive, evidence-based framework to assist policymakers, HEIs, and governing authorities in strengthening the financial sustainability of the DB pension system while ensuring the welfare of current and future employees.

Keywords: Defined Benefit Pension System; Pension Sustainability; Pension Reform; Higher Education Institutions.

Introduction

Across the world, governments are grappling with the escalating fiscal burden of public pension systems. Many countries operating under Defined Benefit (DB) and Pay-As-You-Go (PAYG) frameworks are experiencing rapid increases in pension expenditures driven by demographic shifts, longer life expectancy, and rising dependency ratios. These trends have compelled

¹PhD Scholar, Mehran University Institute of Science, Technology & Development, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan.

Corresponding Author Email: mir.muhammad@admin.muuet.edu.pk

²Mehran University Institute of Science, Technology & Development, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan. Email: moinuddin.abro@faculty.muuet.edu.pk

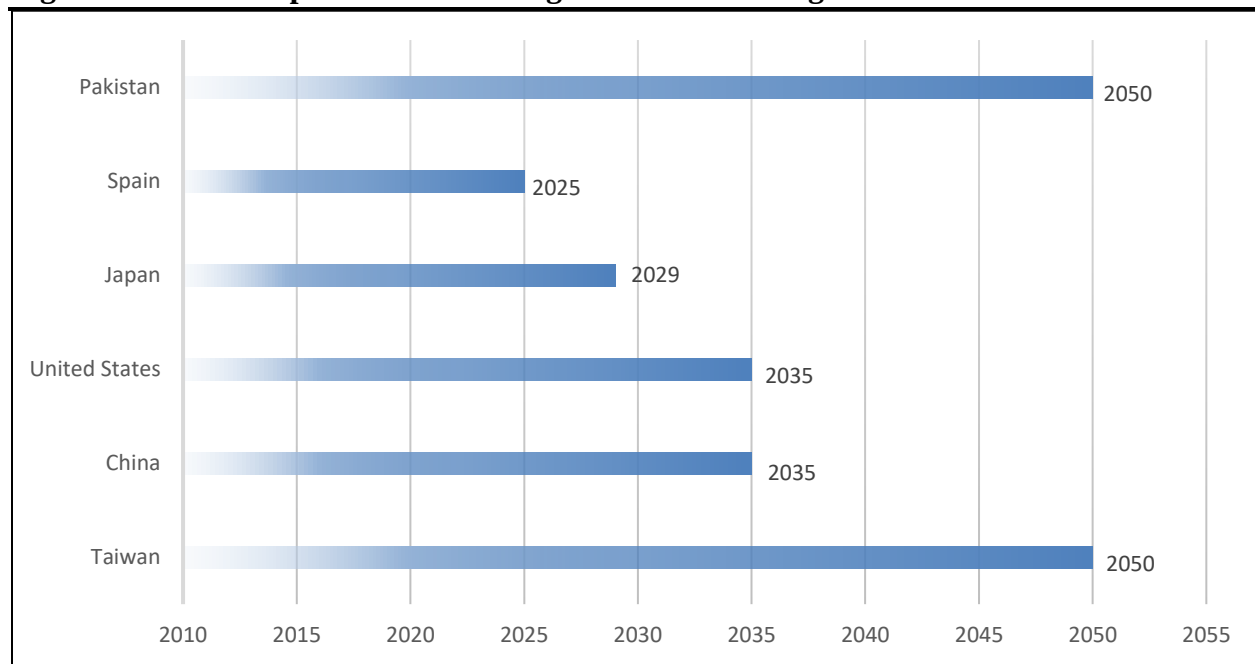
³Mehran University Institute of Science, Technology & Development, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan kamran.shah@faculty.muuet.edu.pk

⁴Mehran University Institute of Science, Technology & Development, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan. Email: arabella.bhutto@faculty.muuet.edu.pk



governments—including those of Taiwan, China, the United States, Japan, and Spain—to introduce large-scale pension reforms to mitigate long-term fiscal risks (Fornero, 2013). Projections indicate that in several nations, pension obligations may consume nearly half of their total government grant allocations in the coming decades, posing severe constraints on public budgets (Choi et al., 2002). The chart below illustrates this projected timeline, highlighting when pension expenditures are expected to absorb half of government funding across different countries.

Figure 1: Pension expenditures absorb government funding



Pakistan reflects this broader global challenge. The country operates a DB–PAYG pension system in which government employees appointed under the Basic Pay Scale (BPS) structure receive fixed monthly pensions for life, followed by family pensions for eligible dependents (Khan, 2024). Because employees make no direct pension contributions, the government bears the full financial burden of these payments (Arif, 2010). While this structure has historically made public-sector employment attractive—due to job security and guaranteed retirement benefits (Wahab et al., 2020)—its sustainability has become increasingly uncertain. Pakistan's pension expenditure has surged from Rs. 225 billion in 2004 to Rs. 2.2 trillion in 2023, an almost 1,000 per cent increase (Dar, 2023). Recently, national leadership has warned that rising pension liabilities pose a threat to fiscal stability that may exceed even the longstanding issue of circular debt. Consequently, the Federal Government is examining comprehensive reforms to create a more equitable and financially sustainable pension framework.

Within this national context, Higher Education Institutions (HEIs) are among the most severely affected public entities. The escalating pension bill has forced many HEIs to divert substantial portions of their recurring grants toward pension payments, thereby constraining their capacity to support academic, research, and institutional development initiatives. To manage increasing staffing and pension costs, the Government has halted regular appointments and raised the retirement age from 60 to 63 years (Dey, 2003). Furthermore, empirical studies indicate that faculty strongly prefer retaining the DB pension model over transitioning to Defined Contribution

(DC) or outsourced pension schemes (Alserda, 2017), intensifying the need to strengthen the existing system rather than replace it.

Given these mounting pressures, a systematic assessment of the DB pension system is essential. Ensuring fiscal sustainability for HEIs while safeguarding employees' retirement security demands evidence-based reforms. In this context, the present study aims to develop practical and viable policy recommendations to enhance the long-term sustainability of the DB Pension Payment System within Higher Education Institutions in Pakistan.

Literature Review

Employees appointed under the Basic Pay Scale (BPS) structure in Pakistan receive pension and family pension benefits through a Pay-As-You-Go (PAYG) mechanism operating within a Defined Benefit (DB) pension framework (Hu, 2006). This arrangement ensures a guaranteed post-retirement income and continued financial support for eligible dependents (Government of Sindh, 1984). Although the PAYG–DB model is widely practised across many countries (Wahab, Aamir, & Hussain, 2020), growing fiscal pressures have made it increasingly difficult for governments to meet pension obligations. In several regions, pension expenditures have begun to exceed salary budgets, primarily due to demographic shifts, including increases in the retired population, declines in fertility rates, extended family pension cycles, and annual pension adjustments (Fornero, 2013; Nektarios & Tinios, 2019).

In response to the structural weaknesses inherent in DB pension schemes, many countries have enacted reforms aligned with the World Bank's multi-pillar pension recommendations (James et al., 2002). Greece implemented a series of benefit reductions between 2010 and 2018 to ease fiscal strain (Nektarios & Tinios, 2019). China transitioned public employees to contributory schemes requiring roughly 8% employee and 11%–20% employer contributions (Hu, 2006; Liu & Sun, 2016). Indonesia increased the retirement age and revised its pension tax structure (Fedotenkov, 2016), while France adopted significant reforms to avert long-term pension fund insolvency (Macron, 2023). These international experiences highlight the diverse policy approaches adopted to address the unsustainability of DB pensions.

Pakistan faces similar challenges. The Government has formally acknowledged that the current DB system is financially unsustainable (Lin et al., 2021). World Bank projections reveal that civil service pension expenditures will surpass salary budgets in Punjab by 2023, in Sindh by 2028, and federally by 2050 (Rehman, 2021). Higher Education Institutions (HEIs) are experiencing parallel fiscal pressures; for example, the University of Sindh's actuarial valuation has warned of a looming pension crisis (Nauman Associates, 2021). Historically, public employees relied on guaranteed DB pensions, but fiscal constraints and policy directions now increasingly favor a transition toward Defined Contribution (DC) or hybrid models (Pay and Pension Committee, 2008). Key drivers of DB unsustainability include discretionary pension increases, commutation and restoration policies, early retirement practices, extended survivor benefits, and high pension replacement rates (Choi, 2002; Rehman, 2021).

Despite these fiscal pressures, employee preference studies indicate persistent support for the DB system. Research on university faculty found strong opposition to shifting toward DC or hybrid pension schemes, with employees expressing a clear preference for retaining the existing DB model (Wahab et al., 2020). This sentiment aligns with broader international evidence demonstrating heterogeneous employee attitudes toward pension reform, often shaped by financial expectations, job security, and perceived fairness (Alserda, 2017).

Given the increasing strain on HEIs, there is a growing need to reassess and reform the DB pension structure to ensure long-term sustainability for both institutions and their employees (Arif, 2010). International reform experiences reveal several potential approaches, such as transitioning employees to contributory schemes, adjusting retirement ages, establishing shared contribution mechanisms, or integrating hybrid pension designs.

In Pakistan's context, this study contributes to existing literature by incorporating insights from operational pension teams—stakeholders whose perspectives have remained largely unexamined. Building on an extensive review of global and national literature, key thematic areas concerning pension receipts, payments, and sustainability were identified. These themes were subsequently validated and refined through interviews with core HEI personnel. The triangulation of literature-based insights and field-level perspectives enhances the credibility and reliability of the findings, consistent with Dey's (2003) recommendations. This iterative process informed the development of a pre-empirical framework, with themes derived from both scholarly literature and practical experience

Research Methodology

This study employed a multiple-case study design, which is particularly suitable for exploring complex institutional mechanisms, such as retirement payment systems, in public sector organisations (Yin, 2003). The research focused on Higher Education Institutions (HEIs) in Sindh, examining how pension receipts and payments are managed within the Defined Benefit (DB) framework.

Research Approach

The study aimed to construct a conceptual framework using either an inductive approach—where themes emerge directly from qualitative data—or a deductive approach—where themes are informed by prior theories and empirical scholarship (Braun & Clarke, 2006). This dual consideration ensured methodological flexibility and theoretical alignment. Consistent with Fornero (2013), the analytical approach emphasised factors essential to pension reform, including risk diversification, enhanced national savings, and improved retirement security.

Sampling and Participants

A total of 19 semi-structured, in-depth interviews were conducted using snowball sampling. Initial participants were selected based on their direct involvement in pension governance across HEIs. These included Members of the Board of Governors (BoG) of the Higher Education Commission, Directors of Finance of HEIs, Pension Department In-Charges and Auditors from the Accountant General of Pakistan.

At the Conclusion of each interview, participants were asked to recommend additional experts familiar with the pension system, enabling the researcher to expand the sample toward individuals with significant operational and policy-level insights.

Data Collection and Analysis

All interviews were transcribed verbatim. A line-by-line coding procedure was conducted to identify meaningful concepts within the data. These initial codes were subsequently organized into broader themes based on conceptual similarities. Each theme was assigned an abbreviation and positioned within a relevant thematic category.

This analytical process followed the principles of thematic analysis as outlined by Miles & Huberman (1994), including (data reduction through coding, data display through categorisation, and conclusion drawing through thematic interpretation).

Framework Development

The identified themes were integrated to construct post-empirical frameworks for each major thematic category. These individual frameworks were then consolidated into a comprehensive pension receipts-and-payments framework that reflects both literature-derived insights and field-level evidence. This methodological triangulation enhanced the credibility, dependability, and analytical depth of the findings.

Explanation of Empirical Framework

Explanation of the Pre-Empirical Framework

The DB -Pension System (Payments)

The pre-empirical framework of the Defined Benefit (DB) Pension System—specifically its payments component—clarifies the institutional structures, regulatory mechanisms, and procedural flows that govern the disbursement of pension benefits before undertaking any empirical investigation. This stage is foundational, as it maps the existing payment architecture, identifies key actors and administrative processes, and outlines the legal and financial arrangements that fulfil pension obligations. By establishing a detailed understanding of how pension payments are currently structured and managed, the pre-empirical framework provides the analytical baseline necessary for subsequent empirical analysis aimed at evaluating system performance and proposing improvements to enhance the sustainability and operational efficiency of the DB Pension System.

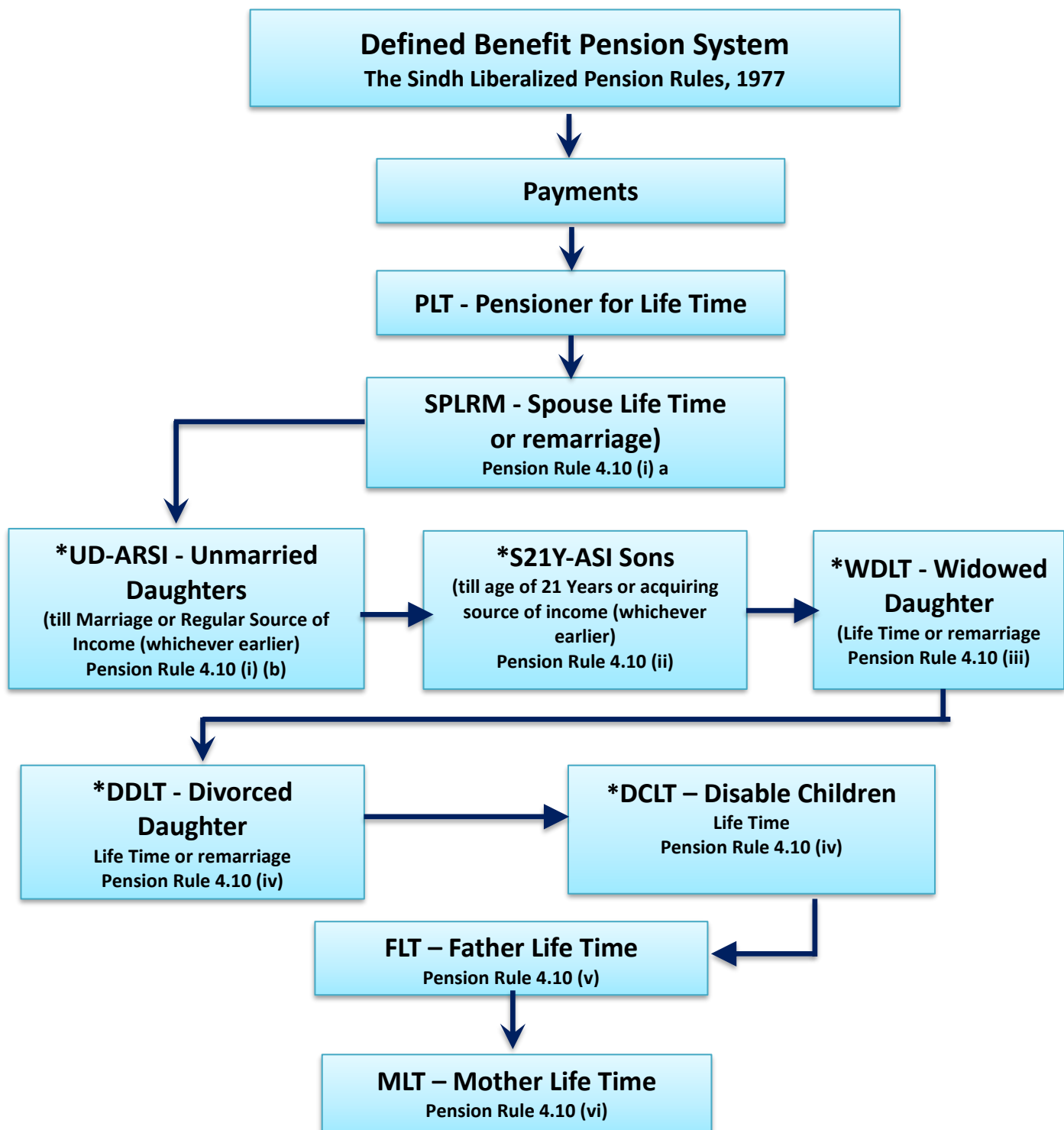
The question put forward for discussion was "what types of pension payments do HEIs disburse to their pensioners"?

The expenditures of the DB - pension system have an extended pension cycle that requires a thorough review.... (P1 & 08), as mentioned by Liu and Sun (2016) and Alserda (2017), outlining the pension distribution cycle.

Participants No. 8 and 16 added that the pension system in Pakistan has been in trouble since its inception; there is a dire need to control it and to prepare policies that cover pension expenditures. He further added that the HEI does not receive any additional grant for payment of pension liabilities.

As per the Defined Benefit (DB) pension system, the complete pension entitlement flow—from the employee's retirement or death (during service or after retirement) through all successive family beneficiaries—has been mapped based on insights gathered from interview respondents. The detailed pension progression tree illustrating each stage of eligibility is presented below:

Figure 2: Defined Benefit Pension System



*family pension will be equally distributed

Source: Compendium of Pension (1984) Government of Sindh, Pakistan.

The above chart shows the Framework of DB -Pension System (Payments), however each theme developed is further explained as follows:

PLT – Pension Life Time: The Monthly pension refers to a regular payment made to an individual after retirement. This periodic disbursement is usually granted as financial support during the recipient's retirement years, compensating for their past service, or as part of a retirement plan.

SPLRM – Spouse Pension for Life Time or Until Remarriages: The Family pension is a financial benefit provided to the spouse of a deceased individual who was eligible for or receiving a pension. The family pension is paid upto remarriage of widow for Lifetime.

UD-ARSI – Unmarried Daughters till marriage or Acquiring Regular Source of Income: After expiry of pensioner and spouse, the unmarried daughters are entitled to receive family pension as long as they remain unmarried and do not acquire a regular source of income.

S21Y-ASI – Sons upto age of 21 Years or Acquiring Source of Income: Upon the demise of the pensioner, the spouse, and the ineligibility of the daughters, sons are eligible for pension until the age of 21, provided they do not have any source of income.

DCLT – Disable Children Life Time: If the aforementioned family members are absent in the family tree, disabled children of the deceased family are eligible to receive a pension until their demise.

WODDLT – Widow or Divorced Daughter Life Time: After that widowed or divorced daughter of pensioner is eligible for receipt of family pension.

FLT – Father Life Time: Subsequent to the mentioned conditions, the father of the deceased also becomes eligible to receive family pension.

MLT – Mother Life Time: The mother of the deceased also becomes eligible to receive family pension until the time of his demise.

Explanation of the Post Empirical Framework

The DB -Pension System (Payments)

What strategies and mechanisms can be employed to effectively manage and control payments within the DB pension system?

This question prompted the discussion of various pension reforms during the interview session, including the following:

The pensioner may receive pension after his retirement. After expiry of employee, the widow may be allowed to get family pension only, if she is having her own pension she may not be allowed to get pension of her husband (P1 & P6).

Participant No.09 added that the family pension be paid for 1 member only other may be dropped. This will be said Family Pension for Single Offspring - FPSO.

Another point raised that in case spouse having any kind of business, from he / she is earning handsome amount, the family pension may not be given ... (P1). This will be called No Business Family Pension Policy – NBFPP.

Participant No. 1 added that male can survive in the society as compare to female, the husband may not be allowed the family pension of his wife. This will be called as Male Family Pension Denial – MFPD. “Every year increase of pension announces on all previous Adhoc, this retrospective increments in pension be stopped” (P3). Participant No. 3 and 4 stated “hire new employees without offering pension benefits; the current salary includes all perks and privileges. The theme drove is Salary with Comprehensive Benefits –SWCB.”

The Government maintains minimum pension and family pension slabs, likewise maximum slabs for pension and family pension must be formulated. They also says no more than one pension be given to same pensioners (P3 & P8). This is called Limit One Pension - LOP.

The Participant No. 3 emphasized that there is a disparity in pension payments. To curb fraudulent pension disbursements, he proposed the implementation of a biometric system for pension release, the same points are also suggested by the participant 04 & 08. Additionally a No remarriage certificate be obtained in case of family pensioners, Biometric System for Pension Release – BSPR.

It appears that the strain on the pension system is caused by disbursing pensions to higher-grade employees, and there is no limit in place to halt excessive pension payments. The mortality rate has also declined, with individuals remaining physically capable and able to work beyond the age of 60. Therefore, it is suggested that employees at the management level be provided with the option to continue their service, the HEI may check their ability and offer them to work upto 65 years of age ... (P07) during this time period he will be 70% of current salary and 30% be pooled to pension fund as an investment, when he reaches on the age of 65 years, the HEI may check again his physical and mental health and if he is fit, he may be offered more to work upto 67 years. This will be called Partial Retirement of Employee –PRE.

The pension is calculated on the basic pay of employee which he draws at the time of retirement, when an employee serves more than 30 years his basic pay for pension at least must be stopped after words he may be allowed increment in basic pay but his pension calculation be made on 30 years of basic pay (Fedotenkov, 2016) ... (P07) called Freeze Basic Pay at 30 Years – FBP-30Y. In reply of this reform, the participant was asked, this reform has already been given where Government has taken average basic pay of last 3 years as quoted by (Yannick, 2023).

In reply participant said in case an employee of BPS-17 served 40 years and get retirement from service. The average basic pay of last 3 years will be Rs.178,450/- i.e. (Rs.175,030/-, Rs.175,450/- & Rs.181,870/-). Contrary if the basic stops at 30 years of service then his basic will be Rs.147,670/-... (P13).

The participant 13 agrees with reform given by [26] that there will be No Early Retirement – NER. However pension share from 65% & 35% to 75% to 35% pension and commutation will increase the burden on pension. The Government may revisit this reform.

Participant No. 6 stated

Family pension for daughters and sons should be permitted only until the age of 21. When the family pension for a daughter is provided under the condition of being unmarried, her family refrains from arranging her marriage, as she becomes a source of income. Imposing an 18-year cap on daughters' pensions aims to facilitate their marriages and manage pension expenditures effectively. This would be called Family Pension to Daughters upto Age of 21 Years – FPD-21Y.

One of participant added during interview session that the age of retirement of employees need to increase from 60 to 65... (P9). In continuity to rise in retirement age Participant No. 07 says in my opinion in case retirement age is increased from 60 to 65, the salary of such employee be paid half, but that salary must be more that monthly pension, the employees will definitely like this option and continue the job.

This is in continuation to the Canadian Government where they increased the retirement age slowly on yearly basis, the public sector employees retirement age starts from 65 year, and increases 66 to 67 year by year (Yin, 2003). Like Pakistan increased reiremet age in KPK but it was not contined

as one of employee approached the court (Ahmed et al., 2021). The theme develops first one is Increase Retirement Age (IRA) and other is Increase Retirement Age Slowly Yearly by Year–IRA-YBY.

Participant No. 14 & 16 added the HEI may take Investment Policy for Each Pensioner - IPEP from 3rd party companies for current employees and not to touch that amount, rather it is directly paid to insurance company for investment purpose. After 30 to 40 years when such employee retires from job this amount is received from insurance company and remaining amount be paid by the HEI itself, this will reduce more than 80% burden of pension payments. Likes wise Participant No.10 said the amount of pension contribution must be invested with private banks. This is called Investment Policy for Each Pensioner – IPEP. The said this will help to generate the 80% of pension funds from insurance companies. It will be called Shared Pension Liabilities – SPL.

The family pension for a spouse should have a specified duration, such as 25 or 30 years, and this duration should be linked to the period the deceased served with the HEI. In continuity to that he shared a real example stated that we have recently surfaced a case of family pensioner, where employee served only 2 years of service with University. The employee came from other organization through proper channel, after joining the University he expired within the period of 2 years. The family pension was paid to widow, after expiry of widow, family pension was transferred to unmarried daughters. After certain time daughters got married and pension was stopped. But after period of 20 years one of daughter of deceased came back with the request that she now has become divorced daughter and requested for restart of family pension ... (P11). Limit on Family Pension with regard to Years -LOFPY. “There are five domains which needs to be checked for control of pension expenditures, 1) Pension Tree 2) Calculations of Pension Payments 3) Frauds of own Employees and 4) People Integrity ...” (P13).

The Participant No.14 added that the Pension Restoration for family pension must be stopped because restoration portion was taken from gross pension of pensioner, after expiry of pensioner this facility may also be stopped. The spouse may not be given Pension Restoration in case of family pension –NPRFP.

Participant No. 14 stated that

The HEIs are currently using a manual pension payment system, leading to frequent miscalculations in pension payments (MCPPE). Recently, an error was discovered where excess medical allowance was paid to pensioners. Consequently, further payments have been halted and recovery of the excess amount has begun. It has been suggested that HEIs should switch to a computerized system to avoid such mistakes in the future.

He further added that a family pensioner were asked that you are entitled for family pension in case of unmarried, she produced no marriage documents. Latter-on she was asked in case of married you will be entitled for family pension, very surprise to see she arranged marriage certificates, there is Integrity Problem (IP) with the pensioners.

The point was raised by the Participant No. 07 that the pension always increases on total pension and salary increases on the basic pay of employees, this should be corrected.

The annual pension raises announced by the government. The increase is allowed on the entire pension. In contrast, salary increases are based on employees' basic pay. He proposed Discontinuing the Retrospective Increase in Pension –DRIP. This is continuity to factor raised by (Lin, 2021). Participant No. 04 said that the pension system in Pakistan is facing Financial System

problem, there is other problem with pension is lack of funds. The sustainability of system is also under question.

The theme surfaced Right Time to Reform Pension System (RTRPS).

The Adhoc increase in salary is main cause for increasing the burden of pension, during last financial year Government of Pakistan revised the Pay Scales which enhances the Basic Pay upto 60% and ultimately pension calculation depends on basic pay ... (P-17).

Theme is Stop Merging Salary Adhoc in Basic Pay - SMSABP.

The employees are being given an option to get Full Gross Pension as Commutation Payment i.e. 100% instead of 25%, by this way we are stopping the conversion of expenditure from salary to pension ... (P-18).

Employees offered option to receive Full Commutation No Monthly Pension - FCNMP.

Participant No. 19 stated "in 2019, we disbursed Rs. 15 million per month in pension. However, due to significant increases, in 2022 we pay Rs. 47 million per month, which is considered multiplication rather than an increase in pension".

The participant is discussing about Fraudulent Misconduct Prevention – FMP to control these practices. "The pension may be paid to pensioner only. However after death of pensioner, the family pension facility be paid till his spouse only ..." (P2). The theme Family Pension Till Spouse – FPTS. The each of the theme is further explained as follows:

RTRPS – Right Time to Reform Pension System: The global pension system is grappling with a financial crisis, and Pakistan, along with HEIs, is not exempt from this challenge. The participant suggested that it is right time to reform the pension system at this juncture. Other no pension will be available and no will work with Government Departments.

FPSO – Family Pension for Single Offspring: The pension should be discontinued after the demise of the pensioner's widow, and no family pension may be granted to the children of the deceased.

NBFPP – No Business Family Pension: Family pension may be withheld from the families of the deceased if they are involved in any business. In this context, an annual income threshold may be established, and if any dependents exceed this limit, they may be ineligible for family pension.

MFPD – Male Family Pension Denial: After expiry of female official of during service or after retirement her husband may not be given the family pension facility.

SWCB – Salary with Comprehensive Benefit: The government official at the time of retirement be given an option to get full commutation payment and withdraw from monthly pension.

MSPFP – Maximum Slab for Pension & Family Pension: Add a cap to the higher side of the pension, aligning with the existing minimum pension and family pension caps maintained by the government. This measure aims to control pension expenditure.

LOP – Limit One Pension: Introduce a single-pension concept instead of disbursing multiple pensions to a single retired official.

BSPR – Bio Matric for Pension Release: Ensuring the implementation of the Biometric system for every pensioner before the release of pension is imperative. Additionally, for family pensions, obtaining a "no remarriage certificate" along with biometrics is advised. Regarding sons and daughters, they should be obligated to provide an income certificate, along with biometric.

PRE – Partial Retirement of Employee: In Pakistan, the retirement age for employees is 60 years, commonly referred to as the superannuation age. However, various countries globally have retirement ages exceeding 60 years. It is proposed that employees retire at the age of 60 and are subsequently rehired until the age of 65 the half salary be paid to employee and half of salary be allocated to the pension system receipts.

FBP-30Y – Freeze Basic Pay at 30 years: The fundamental element in calculating an employee's pension upon retirement is basic it should be frozen at 30 years of service, aligning with the freezing of the commutation formula after 30 years of service.

FPD-21Y – Family Pension to Daughters upto 21 Years: The current criteria for family pension eligibility for daughters are tied to their marital status or source of income, the participant suggested to establish an age limit for daughters' family pensions, specifically setting it at 21 years. The rationale behind this proposal stems from the observation that the availability of the pension facility might discourage people from marrying off the family pensioner daughters, and some might even conceal their daughters' job status to retain the benefit. By imposing a family pension limit for daughters up to the age of 21 years in case of the pensioner's demise.

IRA – Increase Retirement Age: The various countries have increased retirement ages exceeding 60 years. In light of this, a proposal emerged during the interview session to increase the retirement age to 65 years as a measure to control pension expenditures.

IRA-YBY – Increase Retirement Age Year by Year: While a direct increase in retirement age by 5 or 10 years might cause unrest among employees and the government, a participant in the interview session suggested a gradual approach. The proposal involves increasing the retirement age year by year. In the first year, the retirement age could be increased to 62 years, followed by subsequent increases to 65 years and eventually up to 70 years over the years.

IPEP – Investment Policy for Each Pensioner: The investment policy for each pensioner be purchased in favour of every individual. The monthly PLSC be invested in such investment to strengthen the pension system receipts.

SPL – Shared Pension Liability: Currently, HEIs are grappling with the issue of the unavailability of a pension fund, leading to the allocation of academia funds for pension payments. It was suggested to promptly initiate the regular monthly investment of funds for each employee. This would accumulate a substantial fund for employees upon their retirement. HEIs can collect this fund, and if there is any shortfall, the HEI can contribute the remaining amount from its own receipts. This approach aims to mitigate and distribute the pension liability.

LOFPY – Limit on Family Pension with regard to Years: A cap should be established for pension and family pension payments, limiting them to the period for which the deceased individual served with the HEI.

NPRFP – No Pension Restoration for Family Pensioners: After an employee retires from service, the monthly pension is provided for the duration of their service with the HEI. Subsequently, after a specific time period post-retirement (dependent on a calculation table), the pension is increased to a range of 70% to 80% for both the pensioner and family pensioner called Restoration of pension, this increase places a significant financial burden on pension expenses. A suggestion has been put forth to discontinue pension restoration in the event of the employee's demise after retirement.

DRIP – Discontinuing to Retrospective Increase Pension: The Government increases the monthly pension based on the previous increment instead of enhancing the pension on net pension. In contrast, salary increases are applied to the Basic Pay except previous increases. A suggestion has been proposed to increase pension using the net pension formula instead of the entire pension amount.

SMSABP – Stop Merging Salary Adhoc in Basic Pay: The current pension calculation method lonely relies on basic pay, which undergoes revisions every 4 years to account for rising costs and market adjustments. These revisions merges previously announced Adhoc salary increases into the base pay, the suggestion is surfaced not to merge Adhoc increases with the basic pay. This could

significantly impact pension calculations and raise concerns about controlling rising basic pay costs.

FCNMP – Full Commutation No Monthly Pension: The monthly pension is a primary factor contributing to the unsustainability of the system, while the commutation payment (i.e., one-time payment) is not problematic for the pension system. A suggestion was made to pay a lump sum payment called commutation, and the pension could be stopped. This could be implemented by offering option to employees offered at the time of retirement. In fact, one of the HEI has already initiated this practice.

FMP – Fraudulent Misconduct Prevention: Employees associated with pension system payments appear to be engaged in fraudulent activities. To address this issue, it is recommended to introduce provisions for fraudulent misconduct to deter individuals from engaging in such activities and to serve as a deterrent for others.

FPTS – Family Pension till Spouse: After the demise of the pensioner, the family pension facility should not be further extended to his/her family members i.e. unmarried, widowed & divorced daughters, sons, father & mother. The pension facility may restrain upto him / her and to his spouse only.

IP– Integrity Problem: The integrity problem is observed among pensioners, where regardless of the pensioner's actual situation, the primary focus is on ensuring the continuity of pension. In pursuit of this, pensioners are willing to provide any required documents to establish eligibility for pension release, without necessarily considering ethical considerations.

MCCP– Miscalculation in Pension Payments: The miscalculation in pension calculations has been observed, leading to significant financial losses for the HEI.

NER – No Early Retirement: The early retirement of employees is applicable after the service of 25 years be discontinued by considering the financial position of the country.

Finding and Conclusion

This study examined the escalating pension liabilities within Higher Education Institutions (HEIs) and evaluated the sustainability challenges inherent in the existing Defined Benefit (DB) pension system. Drawing upon an extensive review of global and national literature, followed by in-depth interviews with key financial and pension administration personnel, the research identified critical vulnerabilities within the DB pension payment structure.

The analysis revealed that pension expenditures have emerged as a significant fiscal threat to HEIs, consuming a growing share of institutional budgets and weakening their financial stability. Interview insights confirmed that rising pension obligations, combined with insufficient receipts, delays in disbursement of funds, and weak financial planning mechanisms, have created systemic instability. Key findings include:

Rising Pension Expenditures

Pension payments are increasing at a pace that exceeds the growth of receipts, resulting in widening funding gaps and forcing HEIs to divert Recurring Grants to meet pension obligations.

Dependence on the DB Framework

Despite its fiscal strain, employees overwhelmingly prefer the DB system due to its assured income and survivorship benefits. This makes abrupt structural shifts—such as transitioning to a Defined Contribution model—less feasible.

Weak Receipt Generation Mechanisms

The study identified limited streams of pension receipts and an over-reliance on government grants. This structural imbalance contributes significantly to the system's financial vulnerability.

Administrative Gaps in Pension Management

Interviews highlighted inefficient fund utilization, delays in payment processing, and the absence of a dedicated, well-managed pension fund as core administrative challenges.

Urgent Need for Reform

Respondents emphasized the need for reforms focused on better management of pension receipts and payments rather than replacing the DB system entirely. Strengthening, rather than dismantling, the current system emerged as a consensus view.

The findings underscore the urgency of reforming the DB pension payment system within HEIs to ensure its long-term sustainability. Rather than advocating for a complete structural overhaul, this study proposes a set of targeted reforms aimed at enhancing the financial resilience of the DB system. These reforms emphasize:

- *Diversifying and increasing pension receipt streams* to reduce reliance on government grants;
- *Controlling and rationalizing pension expenditures* through improved administrative processes;
- *Establishing and prudently managing a dedicated pension fund* to ensure long-term financial security;
- *Strengthening existing DB structures* to maintain employee trust while adapting to evolving fiscal realities.

Implementing these measures will not only stabilize pension finances but also secure the economic well-being of HEI employees. Furthermore, the framework developed through this study provides HEIs with a practical guide for managing pension receipts and payments, ensuring timely fund availability, protecting recurring grant allocations, and reducing employee insecurity associated with delayed pension benefits. By addressing both financial and administrative dimensions, the proposed reforms chart a sustainable path forward—reinforcing the viability of the DB pension system and supporting the broader fiscal health of Higher Education Institutions.

References

- Ahmed, V., Amin, S., Bakhtiar, U., & Javed, A. (2021). *Government pension & fiscal sustainability in Khyber Pakhtunkhwa*. Sustainable Energy and Economic Development (SEED) Programme.
- Alserda, A. (2017). *Choices in pension management* (Doctoral dissertation). Groningen University. <https://doi.org/978-90-5892-494-0>
- Arif, U. (2010). *Pension system reforms for Pakistan*. Pakistan Institute of Development Economics (PIDE).
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Choi, J. J., Laibson, D., Madrian, B. C., & Metrick, A. (2002). *Defined contribution pensions: Plan rules, participant choices, and the path of least resistance*. <https://doi.org/0-262-16210-5>
- Choi, J.-W. (2002). *Pension reform and fiscal implications in ageing societies*. *Journal of Pension Economics and Finance*, 1(2), 131–152.

- Choi, J.-W., Dalen, H. P. van, & Groenewold, N. (2002). *Population ageing, pensions, and public expenditure: Implications for fiscal sustainability*. *Journal of Population Economics*, 15(4), 789–813.
- Dar, F. M. I. (2023). *Pension reforms for Pakistan*.
- Dar, J. (2023). *Pakistan's growing pension liabilities: Fiscal risks and reform imperatives*. Ministry of Finance, Government of Pakistan.
- Defense Minister. (2024). *Economic Survey of Pakistan 2019–23*. <https://macropakistani.com/>
- Dey, I. (2003). *A user-friendly guide for social scientists*. Routledge.
- Dey, I. (2003). *Pension reforms in public sector organizations: Global practices and implications*. Oxford University Press.
- Dey, I. (2003). *Qualitative data analysis: A user-friendly guide for social scientists*. Routledge.
- Fedotenkov, I. (2016). Ignorance is bliss: Should a pension reform be announced? *Economics Letters*, 147, 135–137. <https://doi.org/10.1016/j.econlet.2016.08.029>
- Fedotenkov, I. (2016). *Pension reforms and retirement age adjustments in Indonesia: Fiscal and social implications*. *International Social Security Review*, 69(3–4), 77–98.
- Fornero, E. (2013). *Reforming public pension systems: Lessons from international experience*. In R. Holzmann, D. Robalino, & N. Takayama (Eds.), *Closing the coverage gap: Role of social pensions and other retirement income transfers* (pp. 129–158). World Bank.
- Government of Sindh. (1984). *Compendium of pension*. Government of Sindh, Pakistan.
- Government of Sindh. (1984). *Sindh Civil Servants Pension Rules, 1984*. Finance Department, Government of Sindh.
- Holzmann, R., Hinz, R., & Con, J. (2005). *Old-age income support in the twenty-first century*. World Bank.
- Hu, Y. (2006). *Reforming China's pension system*. World Bank Social Protection Discussion Paper No. 0604.
- Hu, Y. W. (2006). China's pension reform: A precondition approach. *Global Economic Review*, 35(4), 413–424. <https://doi.org/10.1080/12265080601053843>
- James, E., Ferrier, G., Smalhout, J., & Vittas, D. (2002). *Mutual funds and institutional investments: Improving pension systems and sustaining economic growth*. World Bank.
- Khan, M. A. (2024). *Public sector pension dynamics in Pakistan: Challenges and reform pathways*. Islamabad: Institute of Public Policy.
- Khan, S. A. (2024). *Amendments of Pension Rules 2024*.
- Lin, H. C., Tanaka, A., & Wu, P. S. (2021). Shifting from pay-as-you-go to individual retirement accounts: A path to a sustainable pension system. *Journal of Macroeconomics*, 69, 103329. <https://doi.org/10.1016/j.jmacro.2021.103329>
- Lin, T., Tanaka, S., & Wu, Y. (2021). *Fiscal sustainability of civil service pensions in Pakistan*. World Bank Policy Note.
- Liu, T., & Sun, L. (2016). Pension reform in China. *Journal of Aging and Social Policy*, 28(1), 15–28. <https://doi.org/10.1080/08959420.2016.1111725>
- Liu, T., & Sun, W. (2016). The transition of China's civil servant pension system: Contributions, incentives, and fiscal effects. *China Economic Journal*, 9(3), 259–277.
- Macron, E. (2023). *French pension reform policy note: Ensuring long-term sustainability*. Government of France.

- Macron, E. (2023). Why is Macron in so much trouble over pension reform? *Reuters*. <https://www.reuters.com/world/europe/why-is-macron-so-much-trouble-over-pension-reform-2023-03-20/>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. SAGE Publications.
- Nauman Associates. (2021). *Actuarial valuation of University of Sindh employees' pension funds: Actuarial valuation of employees' pension scheme*.
- Nektarios, M., & Tinios, P. (2019). *Pension reforms in Greece: Economic pressures and policy responses*. Springer.
- Nektarios, M., & Tinios, P. (2019). The Greek pension reforms: Crises and NDC attempts awaiting completion. In *Progress and challenges of nonfinancial defined contribution pension schemes* (Vol. 1, pp. 141–163). https://doi.org/10.1596/978-1-4648-1453-2_ch7
- Pay & Pension Committee. (2008). *Report of the Pay and Pension Committee on civil service pension reforms*. Government of Pakistan.
- Rehman, A. (2021). *Civil service pension projections and fiscal risks in Pakistan* (World Bank Internal Report). World Bank.
- Rehman, A. (2021). *Current pension structure in Pakistan*. <https://propakistani.pk/2021/01/06/18-7-of-total-tax-revenue-goes-to-pensioners-study/>
- Wahab, M. (2017). *The effects of population ageing on the public pension system in Pakistan* (Doctoral dissertation, COMSATS Institute of Information Technology).
- Wahab, M., Aamir, M., & Hussain, A. (2020). Investigating pension choice diversity within a dynamic institutional environment of public sector universities in Pakistan. *Journal Name*, 14, 339–361.
- Wahab, M., Aamir, M., & Hussain, S. (2020). Public sector pension dynamics in Pakistan: Employee preferences and reform challenges. *Pakistan Journal of Applied Economics*, 30(2), 101–120.
- Wahab, M., Saleem, A., & Malik, F. (2020). Public sector employment choices and retirement benefits in Pakistan. *Journal of South Asian Public Policy*, 12(2), 45–62.
- Wang, X., & Shan, H. (2016). Raising the retirement age: The impact on the individual and the actuarial balance for Chinese urban workers' basic pensions. *Economic and Political Studies*. <https://doi.org/10.1080/20954816.2016.1251135>
- Yannick. (2023). *Retirement age Canada: What is the retirement age in Canada (65 or 67)?–All we know*.
- Yin, R. K. (2003). *Case study research: Design and methods*. SAGE Publications.