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Processing retirement referral grant: Case study on textile industry enterprise, Batna

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Abstract--This research paper aims to explore the accounting modifications and reforms undertaken by Algerian institutions in the assessment and allocation of certain benefits for their human resources, particularly long-term benefits. This exploration aligns with ongoing developments in various factors influencing the evolution of economic enterprises and accelerating development. Such advancements have catalyzed significant improvements in accounting reforms across all conceivable accounting practices in different institutions. A critical area of development relates to human resources management, considered the most crucial asset in any enterprise. Human resources reflect the efficiency and success of an enterprise in achieving its objectives. The enterprise strives to attract and retain this asset by implementing policies for compensations and incentives, particularly financial incentives, and providing both long-term and short-term privileges. Employing an analytical approach, this study relies on IAS 19 Employee Benefits to examine its application within the financial accounting framework. The findings indicate that under the SCF financial accounting system, any enterprise opting for the defined benefit scheme must allocate provisions or reserves for retirement enhancements and retirement referral compensations, or similar benefits for its employees. These should be recorded under

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sub-account 153, designated for provisions for pensions and similar obligations.

Keywords---Unemployment Referral Grant, Employee Benefits, IAS 19.

Introduction

Employee benefits are among the most significant factors that achieve job satisfaction within an organization, as they form part of the job security that is considered one of the most important rights of employees. These rights foster a sense of belonging to the organization they work for. This feeling of security regarding their current status and future prospects, both professionally and socially, motivates them to work with greater diligence and loyalty. They understand that the outcomes they contribute to benefit not only the organization but also manifest as advantages they later receive.

Practically, Algerian enterprises have become more considerate of modern and innovative methods in disclosing employee benefits and keeping pace with international financial accounting standards across all economic fields over the last two decades. Algeria has implemented accounting reforms by adopting the financial accounting system derived from international accounting standards. This adoption aims to embrace accounting rules and also to cover the needs and requirements of national economic institutions and address the deficiencies of the national accounting plan.

Despite these adjustments and accounting reforms, institutions still face challenges in evaluating, determining, and processing certain benefits granted to their human resources, especially those of a long-term nature. This issue has been addressed in International Accounting Standards 19 (IAS 19), which deals with employee benefits. The standard mandates the recognition of these benefits, their accounting measurement, and disclosure in all their forms, including those related to retired workers and post-employment benefits.

One of the most significant benefits that influence employees' decisions to remain and continue working in an organization in the long term is the retirement referral grant. This benefit is one of the most important rewards employees receive in exchange for their service throughout their tenure in the organization. The method of calculating, estimating, and accounting treatment of this grant varies from one institution to another, depending on the nature of its activity, size, turnover, number of workers, and other factors that determine its value. Consequently, institutions turn to financial accounting standards as a practical reference to assist them in this process, which we will explore in this study.

The central issue of the study revolves around how to analyze the retirement referral grant and the benefits employees receive after ending their service in the institution, in light of the IAS19 standards specific to employee benefits and under the SCF financial accounting system. Thus, we pose the following question: **How is the retirement referral grant processed according to the financial accounting standard at the Textile enterprise?**

1. Concept of Employee Benefits

Various definitions of the advantages and benefits for employees have been provided by researchers. Among the most notable: Employee benefits are the privileges granted by an organization to its employees in return for the services they provide, whether they are in an active state or not. The organization bears these costs in the form of expenses against predetermined work or under conditions or contractual commitments with the employees ([Official-Gazette, 2009, p. 23](#)).

Employee benefits are also defined as all the advantages paid by an organization to its employees, i.e., all the wages or returns that an employee receives in exchange for fulfilling a legal obligation (law, collective agreement, employment contracts, etc.) or an implicit commitment to a specific job. These benefits include two main elements: direct financial payments, which take the form of wages, incentives, and profits, and indirect financial payments, such as social security and paid leave ([Rabia & Hassiani, 2013, p. 164](#)).

As a comprehensive definition, employee benefits represent the privileges provided by an organization in any form in exchange for services rendered by its employees. These arise from short-term or long-term commitments under various legal or ordinary implicit obligations, which impose payment obligations on the organization.

2. Importance of Employee Benefits

Employee benefits are of significant importance to both employees and the organization, and their importance is reflected in ([Hassouna, 2007, p. 107](#)):

- Building a positive relationship between the employee and the organization they work for;
- Increasing job satisfaction among employees who benefit from these advantages;
- Providing broader coverage for risks at a lower cost and reducing the financial burden on the organization;
- Ensuring the best opportunities to benefit from the skills and performance of the workers.

3. Classification of Employee Benefits

In any organization, employees receive various benefits, and it is beneficial for researchers or accountants to classify these into types or specific categories for ease of use. The financial accounting system distinguishes between short-term and long-term employee benefits, and the following classification illustrates this distinction ([Lakliti & Aali, 2017, p. 18](#)):

3.1 Short-term Benefits

These are commitments made by the organization within a short time frame and include payments made within the current fiscal year at the time the work was performed by the employees. Details of short-term benefit commitments include ([Lakliti & Aali, 2017, p. 07](#)):

3.1.1 Wages and Salaries

Wages are the compensation owed to a worker in return for their work, either in cash or in kind, along with other entitlements of any kind, provided that the law, employment contract, internal regulations, or established dealings stipulate their payment, in addition to wages due for overtime work ([Rabia & Hassiani, 2013, p. 164](#)).

3.1.2 Approved Wage Compensations (Allowances, Compensations, and Grants)

There are two types of compensations in an organization: indirect compensations and direct compensations ([07-304, 2007](#)).

3.2 Long-term Benefits

These are commitments made by the organization within short-term periods, but include payments that are due after the end of the current fiscal year. These benefits are payable after employees have completed their duties and include the following ([Jumaa, 2004, p. 10](#)):

- Post-employment or operation benefits: These are benefits that are due to employees after they end their service or employment relationship with the organization.
- End of service benefits in the form of end-of-contract compensations: These are typically paid out when an employment contract concludes, often calculated based on the duration of service and other factors specified in the employment agreement.
- Other long-term benefits: These may include pensions, long-term disability benefits, or other benefits that are not due until after the employment has ended and that accrue over a long period.

Details of commitments for short-term benefits are as follows:

3.2.1 Post-employment benefits (Post-operation)

These are benefits due to employees after completing their service period, primarily representing retirement benefits such as salaries or pensions, and other post-service benefits such as life insurance after service termination, post-operation medical coverage, etc., according to benefit plans. These plans are arrangements made by the institution to provide these benefits to one or more employees, seen as linked to the future relationship between the employee and the institution, i.e., after the employee's retirement ([Banat, 2022, p. 1558](#)). These plans fall into two types of post-operation contribution and subscription systems ([Miyahi & Al-Hashimi, 2022, p. 199](#)):

A. Defined Contribution Plans (Les régimes à cotisation définies)

Also known as defined contribution plans, these are based on laws specific to each country. In this system, the institution pays fixed contributions (funds) to a separate entity such as a pension fund, usually as a percentage of wages. The institution has no legal or implicit obligation to pay additional contributions if the second institution (the fund) does not have enough to pay the expected benefits value. The amount may or may not be sufficient, and here the concerned employees bear any shortfall. The institution's role is limited to paying the contributions, and in this system, the recording in the institution's accounts

appears as a liability and debt towards the second institution, like the social security plan.

B. Defined Benefit Plans (Les régimes à prestation définies)

Also known as defined benefit plans, these are contributions that take the form of cash payments, such as end-of-service compensation or retirement, or in-kind benefits such as medical benefits or other benefits. The institution pays additional contributions if the fund does not have sufficient assets to pay the employees' benefits, thereby bearing the predictive and investment risks, not the worker. Accounting for these contributions under this system is complex, and the institution must seek the aid of a specialized expert to objectively determine post-operation benefits and calculate the amount of employees' rights in exchange for the services provided during previous periods. Thus, the institution is allowed to make provisions to cover these costs and must review these annual provisions at the end of each cycle.

The institution relies on the following actuarial assumptions:

- Demographic assumptions: Related to the future characteristics of former, current, and eligible employees: mortality during employment; turnover rates of employees, disability, and early retirement; the proportion of plan members entitled to these benefits and the claim rates under the medical plan.
- Financial assumptions: Concerning the discount rate and the future levels of salaries and employee benefits, as well as the expected rate of return on plan assets.

3.2.2 End of Service Benefits (End of Contract Compensation)

These are benefits due to any employee upon the termination of the employment contract between them and the organization before the normal retirement age or as a result of the employee's decision to leave the organization voluntarily in exchange for these benefits, as stipulated in Articles 216-220 of the Civil Code. The organization must recognize end of service benefits as a liability and corresponding expense only when it is committed to terminating an employee's (contract termination) or a group of employees' services before the normal retirement date and offers end of service benefits as a result of an offer made to encourage voluntary departure ([IAS, 2024](#)).

3.2.3 Other Long-term Benefits

These are other long-term benefits (excluding post-service and end of service benefits) that are not fully due during the 12 months following the end of the period in which the employees provide their services. Examples include long-term paid absences, benefits related to seniority, compensations arising from the worker's long-term incapacity to work, contributions, bonuses due for payment, and wages deferred for more than a year ([Akouch, 2011, p. 43](#)). This category includes various types of other long-term employee benefits:

- Compensated long-term absences, such as long-term service leave;
- Benefits for celebrations of occasions or other long-term service benefits;
- Long-term disability benefits;
- Participation in rewards and profits more than 12 months after the end of the period in which the service is provided;

- Deferred compensation paid more than 12 months after the end of the period in which compensation is earned.

4. Concept of the Retirement Referral Grant

The Retirement Referral Grant is a benefit provided by an organization to its employees after the completion of their service period. This grant is also referred to as retirement severance compensation ([Bakari & Medani, 2015, p. 175](#)). The value of this grant varies from one organization to another and is often determined based on collective agreements or employment contracts. The grant is paid directly by the organization to the employee as a one-time payment upon their retirement.

The calculation of the Retirement Referral Grant (IDR) is based on defined benefit plans and relies on actuarial techniques grounded in financial and demographic assumptions. These assumptions include factors such as mortality rates, employee turnover rates, discount rates, wage growth rates, and other criteria that help determine the grant amount ([Lakliti & Aali, 2017, p. 18](#)).

Under this plan, the organization provides retirement benefits to employees, which manifest as the retirement referral grant. The grant's value is determined based on the present value of the obligations expected to be paid, applying the relevant actuarial assumptions ([Lakliti & Aali, 2017, p. 18](#)).

5. Calculation of the Retirement Referral Grant (Accounting Treatment)

Organizations provide the Retirement Referral Grant to employees who have completed their service. This grant is a defined benefit determined by the obligations likely to be paid to employees. The calculation relies on a specific actuarial method, with all future expenses recorded as provisions at the end of each financial cycle ([CNR, 2024](#)). These provisions must be reviewed periodically to ensure the organization can meet its obligations. Several criteria are considered when calculating this grant, as outlined below ([Lakliti & Aali, 2017, p. 19](#)):

5.1 Granted Benefits

This refers to the employee's right to receive retirement benefits. Under this right, the employee is compensated for their work, either through a contractual agreement or an implicit arrangement.

5.2 Reference Wage

This is one of the fundamental elements used to calculate the retirement grant. It is determined by legal provisions and agreements. The reference wage can be the same as the base salary, job-specific salary, or any amount agreed upon between the employer and the employee. It is defined according to a specific reference period.

5.3 Reference Period

This is the period the employee spends in the organization, from the date of appointment until retirement. Eligibility conditions for the grant must be clearly specified during this period.

5.4 Wage Growth Rate and Reference Amount

This represents the anticipated average growth in wages, used to calculate the value of the retirement grant (based on the reference wage). When determining this rate, the following factors are considered:

- Inflation rates,
- Job seniority,
- General wage index,
- Promotions,
- Changes in macroeconomic indicators,
- Evolution of wages and salaries in the same sector and job over long periods (ranging between 10 to 15 years).

The calculation model for the Retirement Referral Grant is chosen based on each organization's obligations to its employees. Below are some of the key criteria used to prepare the calculation model:

A. Employee Turnover Rate

The employee turnover rate refers to the average number of employees entering and leaving the organization during the previous year compared to the total number of employees at the end of that year ([Dmamda, 2019, p. 122](#)). The purpose of this metric is to identify the number of employees leaving each year. The turnover rate is calculated using the following formula:

$$\text{Employee Turnover Rate} = \frac{(n \text{ Entering Year} + n \text{ Leaving Year}) \times 2}{n \frac{31}{12}} \times 100$$

Where:

- $n \text{ Entering Year}$ = Number of employees entering during the year
- $n \text{ Leaving Year}$ = Number of employees leaving during the year
- $n \frac{31}{12}$ = Total number of employees at the end of the previous year (December 31)

B. Employee Loyalty and Retention Rate

The employee loyalty and retention rate measures the probability that an employee will remain with the organization or leave it. This metric is essential for assessing long-term obligations related to retirement benefits. The loyalty and retention rate is calculated using the following formula:

$$\text{Retention Rate} = (1 - \text{Probability of Departure})^n$$

Where:

- Probability of Departure = The likelihood that an employee will leave the organization.
- n = The remaining period until the employee's retirement date.

C. Annual Departure Rate

The annual departure rate represents the ratio between the number of employees leaving the organization during the year and the total number of employees at the end of the previous period ([Dmamda, 2019, p. 123](#)). This rate helps assess the likelihood of employee departures within a given year. The formula for calculating the annual departure rate is as follows:

$$\text{Annual Departure Rate} = \frac{\text{Number of Employees Leaving During the Year (n)}}{\text{Total Number of Employees at the End of Previous Year (n - 1)}}$$

Where:

- Number of Employees Leaving During the Year (n)= The total number of employees who left the organization during the current year.
- Total Number of Employees at the End of the Previous Year (n-1) = The total number of employees as of December 31 of the previous year.

D. Survival Probability

The survival probability refers to the expected lifespan of an employee until their retirement date. This probability is crucial for assessing the likelihood that an employee will remain alive and in service until retirement. The survival probability is calculated using the following formula:

$$\text{Survival Probability} = (1 - \text{Mortality Rate})^n$$

Where:

- Mortality Rate = The likelihood of death within a specified period.
- n = The remaining period until the employee's retirement date.

This probability is estimated based on statistics provided by institutions such as the National Office of Statistics or the National Insurance Organization. These statistics are applied according to the sector and economic activity to facilitate the determination of survival rates by age groups for all employees.

E. Probability of Remaining with the Organization

The probability of remaining with the organization refers to the likelihood that an employee will stay with the organization until retirement, excluding departures due to retirement. This probability considers employees who leave the organization within a period of 5 to 10 years, in addition to factoring in the mortality rate (CNR, 2024). It is generally calculated using the following formula:

$$\text{Probability of Remaining} = \frac{\text{Survival Probability} \times \text{Loyalty}}{\text{Retention Probability}}$$

Actuarial methods are used to determine the provision for retirement referral benefits at the end of each financial cycle. The calculation formula is as follows:

$$\text{Provision} = \text{Reference Wage} \times (1 + \text{Growth Rate})^n \times (1 - \text{Turnover Rate})^n \times (1 - \text{Mortality Rate})^n \times \frac{\text{Seniority Achieved}}{\text{Maximum Seniority}} \times (1 - \text{Discount Rate})^{n-1}$$

Where:

- Reference Wage = The base wage used to calculate the retirement benefit.
- Growth Rate = The anticipated rate of wage growth.
- Turnover Rate = The probability that an employee will leave the organization before retirement.
- Mortality Rate = The probability of an employee's death before retirement.
- Seniority Achieved / Maximum Seniority = The ratio of current seniority to the maximum possible seniority.
- Discount Rate = The rate used to discount future obligations to present value.
- n = The remaining period until the employee's retirement.

The defined benefit system for retirement pensions, supplements, and retirement-related compensations is recorded under sub-account 153, known as “Pensions and Similar Obligations.” To ensure the correct calculation of the Retirement Referral Grant, the following stages are undertaken ([Lakliti & Aali, 2017, p. 19](#)):

- Estimate the amounts that will be paid to retired employees after retirement, determined based on the wages earned during the final years of service.
- This estimation is primarily linked to the probability that the employee remains alive or continues working with the organization until retirement.
- Identify the specific amount of the grant starting from the date it is due to be paid.
- Record the provision based on decisions to increase, create, or recover its value. The accounting entries vary as follows:

Creating the Provision: The provision is created annually with the same type of entry, though the amounts may differ. The entry is as follows ([Jassim, 2024, p. 22](#)):

Account number		.../.../ N	Amount	
Debit	Credit		Debit	Credit
686X		Depreciation Provisions, Reserves, and Financial Losses (IDR)	XXX	
	153	Provisions for Pensions and Similar Obligations		XXX

Reversing the Provision: Reversing the provision occurs in cases where an employee has died, resigned, or been dismissed. The reversal applies to all prior years' provisions. The accounting entry for the reversal of the provision is as follows ([Lakliti & Aali, 2017, p. 23](#)):

Account number		.../.../ N	Amount	
Debit	Credit		Debit	Credit
153		Provisions for Pensions and Similar Obligations	XXX	
	786	Recovery of Value Losses and Provisions		XXX

Increasing the Provision: Increasing the provision occurs when the value of the calculated retirement benefit provision increases based on the organization's reassessment. The process involves recording the new provision value, the difference between the new and old provisions, and deferred tax on the difference. The accounting entries for increasing the provision are as follows:

Account number		.../.../ N	Amount	
Debit	Credit		Debit	Credit
686		Depreciation Provisions, Reserves, and Financial Losses (IDR)	XXX	
	153	Provisions for Pensions and Similar Obligations		XXX
		.../.../ N		
115		Retained Earnings (Adjustment of Prior Years' Results)	XXX	
	153	Provisions for Pensions and Similar Obligations (Recording the Difference)		XXX
		.../.../ N		
133		Deferred Tax on Assets	XXX	
	692	Deferred Tax on Assets (Recording Deferred Tax on the		XXX

		Difference)		
		Deferred Tax=Difference in Provision×IBS Tax Rate		

After creating provisions for each year under Account 153 (Provisions for Pensions and Similar Obligations), the total obligation accumulates to cover the retirement referral grant (IDR). The organization uses the unit credit method to determine the present value of its benefit obligations. This method reflects the value of the retirement referral grant by considering end-of-service wages, accrued benefits, financial assumptions, and plan asset returns ([Lakliti & Aali, 2017, p. 24](#)).

$$\text{Obligation Present Value} = \text{Accrued Employee Benefits} \times \text{Payment Probability} \times \text{Discount Factor}$$

Where:

Accrued Employee Benefits

$$= \text{End of Service Grant Rate} \times \text{Seniority} \times \text{Final Wage} \times \left(\frac{\text{Total Seniority}}{\text{Current Seniority}} \right)$$

Probability of Payment

$$= \text{Survival Probability}$$

$$\times \text{Probability of Remaining with the Organization Until Retirement}$$

$$\text{Discount Factor} = (1 + \text{Discount Rate})^{-\text{Future Seniority}}$$

Accounting Entries for the Retirement Referral Grant

After calculating the retirement referral grant, the actual amount paid by the organization to the employee may be equal to or greater than the liability recorded in the provisions. Therefore, the amount is not fixed, as follows ([MGPAP, 2024](#)):

- If the retirement grant is greater than the provision for pensions and similar obligations, a financial expense is recorded to adjust the previous results.
- If the retirement grant is less than the provision for pensions and similar obligations, it is recorded as a recovery of losses.

In all cases, Account 153 must be settled. The accounting entry for this grant is as follows ([Lakliti & Aali, 2017, p. 25](#)):

Account number		.../.../ N	Amount	
Debit	Credit		Debit	Credit
638		Other Employee Expenses – Employee Entitlements	XXX	
	421	Employees – Net Wages Payable		XXX
	442	State – Income Tax (IRG 10%)		XXX
		Record the grant payment		
		.../.../ N		
153		Provisions for Pensions and Similar Obligations	XXX	
	638	Other Employee Expenses – Employee Entitlements		XXX
		Settle the provision		
		.../.../ N		
421		Employees – Net Wages Payable	XXX	
658/66		Other Operating Expenses / Financial Expenses	XXX	
115		Retained Earnings (Adjustment of Prior Years' Results)	XXX	
	512	Bank Current Accounts		XXX
	786	Recovery of Value Losses and Provisions		XXX

		Pay the grant		
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6. Current Practices for the Retirement Referral Grant in the Case Study Institution

Calculation of the Last 60 Months' Grant and the Retirement Referral Grant (IDR)

6.1 Calculation of the 60-Month Differential Grant in Textile Company

- The base salary is 20,000 DZD.
- The salary after adding 3 grades is 23,750 DZD.
- The difference for 3 grades in the salary is 3,750 DZD.
- By dividing 3,750 DZD by 22 days, we get 170.45 DZD.
- By calculating 242 days of work in one year: $170.45 \times 242 = 41,248.9 \approx 41,250$

Table (01): Annual Scoring Table

2019		2020		2021		2022		2023		2024	
Difference		Difference		Difference		Difference		Difference		Difference	
3,750.00		3,751.00		3,752.00		3,753.00		3,754.00		3,755.00	
M	H	M	H	M	H	M	H	M	H	M	H
170.45	21.64	170.45	21.64	170.45	21.64	170.45	21.64	170.45	21.64	170.45	21.64
-	-	242 Days	-	242 Days	-	242 Days	-	242 Days	-	242 Days	-
-		41,250.00		41,251.00		41,252.00		41,253.00		41,254.00	

Source: From the company's documents

Table (02): Calculation of the 60-Month Grant

Category Code	Assignment Section	Ghazal 2018		Ghazal 2019		Direct Supervisor 2020		Branch Head 2021		Division Head 2022		District Head 2023	
		Base	Taux	Base	Taux	Base	Taux	Base	Taux	Base	Taux	Base	Taux
M030	Basic Salary	-	-	41,250.00	-	41,250.00	-	41,250.00	-	41,250.00	-	41,250.00	-
M258	Noise Allowance	-	0%	7,837.50	19%	7,012.50	17%	6,187.50	15%	6,187.50	15%	6,187.50	15%
M262	Experience Allowance (Seniority)	-	0%	21,450.00	52%	22,275.00	54%	23,100.00	56%	23,925.00	58%	24,750.00	60%
M268	PRC Special Impact Allowance	-	0%	6,187.50	15%	6,187.50	15%	8,250.00	20%	10,312.50	25%	12,564.75	30%
M278	Responsibility Allowance	-	0%	-	0%	6,187.50	15%	8,250.00	20%	8,250.00	20%	10,312.50	25%
M315	10% Shift Work Allowance	-	0%	4,125.00	10%	4,125.00	10%	4,125.00	10%	4,125.00	10%	8,250.00	20%
R100	Annual Leave	-	-	6,737.50	-	7,253.13	-	7,596.88	-	7,837.50	-	8,609.56	-
M490	03 Grades Productivity	-	-	87,587.50	-	94,290.63	-	98,759.38	-	101,887.50	-	111,924.31	-

Source: From the company's documents

6.2 Definition of the Basic Salary: The amount of the basic salary for each worker category is determined according to the collective agreements signed by the organization. It is calculated by using the grade-specific index points, which are established based on the factors of the relevant job position. Each job position is assigned specific index points corresponding to a certain monetary value.

- **Definition of the Noise Allowance:** This is an allowance granted to workers who operate machines with loud noise levels or to other workers exposed to the noise. The percentage of this allowance varies depending on the workplace and the type of machine.
- **Experience Allowance (Seniority):** This allowance is based on an increment of 2% per year, up to a maximum of 60% for all positions and employees.
- **Responsibility Allowance:** This is an allowance based on the sensitivity of the position. It is granted to individuals responsible for a team or department, with the amount varying depending on the nature and level of responsibility assumed.
- **Shift Work Allowance:** This allowance is granted to workers who work in alternating teams as follows:

Table (03): Shift Work Allowance

Team	Team Number	Hours Worked	Percentage
A	1	8	0%
B	2	8	10%
C	3	8	15%
D	4	12	20%

Source: From the company's documents

Annual Leave: This is a paid leave granted to employees to use at their discretion. The duration of the annual leave varies depending on the policies set by the employer.

Table (04): Calculation of the 60-Month Grant Including IRG and Social Security

Category Code	Assignment Section	Ghazal 2017	Ghazal 2018	Ghazal 2019	Ghazal 2020	Ghazal 2021	Total
M030	Basic Salary	41,250.00	41,250.00	41,250.00	41,250.00	41,250.00	206,250.00
M258	Noise Allowance	7,837.50	7,012.50	6,187.50	6,187.50	6,187.50	33,412.50
M262	Experience Allowance (Seniority)	21,450.00	22,275.00	23,100.00	23,925.00	24,750.00	115,500.00
M268	PRC Special Allowance	6,187.50	6,187.50	8,250.00	10,312.50	12,564.75	43,502.25
M278	Responsibility Allowance	-	6,187.50	8,250.00	8,250.00	10,312.50	33,000.00
M315	10% Shift Work Allowance	4,125.00	4,125.00	4,125.00	4,125.00	8,250.00	24,750.00
R100	Annual Leave	6,737.50	7,253.13	7,596.88	7,837.50	8,609.56	38,034.56
M490	03 Grades Productivity	87,587.50	94,290.63	98,759.38	101,887.50	111,924.31	494,449.31
R510	Social Security	7,882.88	8,486.16	8,888.34	9,169.88	10,073.19	44,500.44
R651	Wage Tax	79,704.63	85,804.47	89,971.03	92,717.63	101,851.12	449,948.87

Source: From the company's documents

- Then we calculate the 03 Grades Productivity Grant, which amounts to 494,449.31 DZD, we subtract the amount returned for social security rights (9%).
- Then, we subtract the amount recovered for income tax (IRG), which is 134,984.66 DZD.
- This gives us the net 03 Grades Productivity Grant for the last 60 months, with a value of 394,464.65 DZD.

6.4 Accounting Entries

Account number		.../.../ N	Amount	
Debit	Credit		Debit	Credit
63		Employee Expenses	XXX	
	421	Net Wages Payable		XXX

Account number		.../.../ N	Amount	
Debit	Credit		Debit	Credit
421		Net Wages Payable	XXX	
	512	Bank Current Accounts		XXX

6.5 Retirement Referral Grant

The Retirement Referral Grant in the Textile Company is calculated as follows:

- Take the employee's salary statement for the last month without absences.
- Multiply the number of years of experience by 0.2.
- Multiply the result by the last IRG tax amount for the month.

Example:

An employee completed 30 years of work in the company. The last IRG tax without absences is 12,000 DZD.

$$12,000 \times (30 \times 0.2) = 12,000 \times 6 = 72,000\text{DZD}$$

6.6 Illustrative Example Due to Lack of Information from the Case Study Institution

The Retirement Referral Grant is the grant provided at the end of the employee's service upon retirement. To account for this grant, a provision must be allocated and distributed over several cycles. This ensures that a single cycle does not bear a disproportionate financial burden, adhering to the accrual basis principle.

The provision for the retirement grant is calculated annually using specific techniques and assumptions. The company begins forming the provision for each employee starting from the sixth year of service. The provision includes all six years and is determined using actuarial assumptions and methods. These parameters are used to standardize and calculate the Retirement Grant Provision:

- **Reference Salary:**The salary for the specific job position is used as the basis for calculating the retirement benefit provision.
- **Reference Period:**This represents the actual work period, calculated as the difference between the date of appointment and the retirement date.
- **Reference Salary Growth Rate:**The reference salary is assumed to grow annually at a fixed rate of $t = 0.5\%$, as specified by the company.
- **Employee Turnover Rate:**The employee turnover rate is calculated using the following formula:

$$\text{Employee Turnover Rate} = \frac{(n \text{ Entering Year} + n \text{ Leaving Year}) \times 2}{(n - 1) 31/12} \times 100$$

Where:

- $n \text{ Entering Year}$ = Number of employees entering during the year
- $n \text{ Leaving Year}$ = Number of employees leaving during the year

- $(n - 1) \frac{31}{12} =$ Total number of employees at the end of the previous year (12/ 31)

Table (05): Textile Corporation Statistics

Description		Company Statistics for the Year 2017	
Number of Incoming Workers	Senior	2	6
	Executive	2	
	Professional	2	
Number of Outgoing Workers	Retirees	16	20
	Dismissed	2	
	Deaths	2	
Total Number of Workers	Frame	282	574
	Executive	228	
	Professional	104	

Source: From the company's documents

Calculation of Employee Turnover Rate and Related Metrics for the First Quarter of 2017

Employee Turnover Rate: The turnover rate for the first quarter of 2017 is calculated as follows:

$$\text{Turnover Rate} = \left(\frac{100 \times 2}{4 + 20} \right) \div 574 = 2\%$$

Loyalty Rate: The loyalty rate is calculated using the formula:

$$\text{Loyalty Rate} = (1 - \text{Turnover Rate or Probability of Departure})^n$$

This rate varies for each employee depending on the remaining years until their retirement.

Annual Departure Rate: The annual departure rate is calculated as follows:

$$\text{Annual Departure Rate} = \frac{\text{Number of Employees Leaving During the Year}}{\text{Total Number of Employees}} = \frac{20}{574} = 0.03\%$$

Survival Probability: The survival probability until the retirement date is calculated using:

$$\text{Survival Probability} = (1 - \text{Mortality Rate})^n$$

Where:

$$\text{Mortality Rate} = \frac{\text{Number of Deaths}}{\text{Total Number of Employees}} \times 100$$

The sum of the survival probability and mortality rate is always 100%:

$$\text{Survival Probability} + \text{Mortality Rate} = 100\%$$

Probability of Remaining with the Organization:

The probability of remaining with the organization is calculated as:

$$\text{Probability of Remaining} = \text{Loyalty Rate} \times \text{Survival Probability}$$

Alternatively:

$$\text{Probability of Remaining} + \text{Turnover Rate} = 100\%$$

Discount Rate: The discount rate is set by the organization at $t=0.5\%$
Formula for Calculating the Retirement Referral Grant Provision

$$S.P = \frac{Aa}{Af} \times (1 + i)^{-n} \times Ps \times Pp \times (1 + t)^n \times M$$

Where:

Table (06): the symbols represent the following:

Symbol	French Meaning	English Meaning
S.P	Salaire de poste mensuel	Monthly position salary
M	Nombre de mois acquis sur convention collective	Number of months granted under the collective agreement
T	Taux d'accroissement du salaire par an	Annual salary growth rate
Aa	Années travaillées dans le secteur	Years worked in the organization
N	Nombre d'années restant jusqu'au départ en retraite	Number of years remaining until retirement
Pp	La probabilité de présence d'un salarié dans l'entreprise	Probability of being present in the organization
Ps	La probabilité de survie du salarié jusqu'à l'âge de la retraite	Probability of survival until retirement age
I	Le taux d'actualisation	Discount rate

Source: From the company's documents

The Retirement Referral Grant in the organization is determined using the following formula:

$$Retirement\ Referral\ Grant = S.P \times (1 + T)^n \times M \times Pp \times Ps \times (1 + I)^n$$

The following table shows how to apply the formula with an illustrative example due to the lack of information provided by the case study institution:

Table (07): Sample Table for Calculating the Retirement Referral Grant Provision

Statement		Employee 01	Employee 02	Employee 03	Employee 04	Employee 05
Number		15	27	77	84	89
Name and Surname		xxx	xxx	xxx	xxx	xxx
Gender		Male	Male	Male	Male	Male
Employment Date		09-01-1991	02-11-1996	28-10-1989	25-11-1990	25-11-1990
Date of Birth		15-03-1967	16-07-1973	11-11-1964	01-07-1969	01-07-1967
Current Age		50	43	52	47	49
Years Worked in the Institution (Aa)		26	20	27	26	26
Years Remaining Until Age 60 (Future Seniority)		10	17	8	13	11
Total Years (Af)		36	37	35	39	37
Monthly Position Salary (S.P)		184,777.80	176,617.39	306,255.85	190,024.80	197,598.11
Salary Increase (t)	Taux t	5%	5%	5%	5%	5%
	(t + 1)	1.05	1.05	1.05	1.05	1.05
	(1 + t) ⁿ	1.6489	2.2459	1.4715	1.8477	1.6759
Months Granted (M)		36	37	35	39	37
Compensation		11,019,162	14,544,343	15,810,072	13,576,224.80	12,142,486.83
Additional Amount		83	9	0	-	-
Probability of Presence	Turnover Rate	1%	1%	1%	1%	1%
	1 - Turnover Rate	99%	99%	99%	99%	99%
	Probability of Presence (Pp)	99%	99%	99%	99%	99%
Probability of Survival	Death Rate	0.00449	0.00449	0.00449	0.00449	0.00449
	1 - Death Rate	0.996	0.996	0.996	0.996	0.996
	Probability of Survival (Ps)	94.64%	94.64%	94.64%	94.64%	94.64%
Discount Rate	Taux t	5%	5%	5%	5%	5%
	(t + 1)	1.05	1.05	1.05	1.05	1.05
	(t + 1) ⁿ	0.6056	0.4453	0.6796	0.5412	0.5967
Aa/Af		0.7166	0.5477	0.7743	0.6746	0.7114
Retirement Provision		4,486,917.13	3,323,444.05	7,795,426.03	4,644,002.75	4,829,086.57
Total Annual Provisions						25,078,876.53

Source: From the company's documents

The previous table shows a sample calculation of the retirement referral grant provision for a group of 5 employees. Based on this calculation, the organization records the provision annually, aggregating the provisions for all employees each year. The organization makes the following accounting entry annually, with varying amounts according to the provisions calculated for each employee:

Account number		.../.../ N	Amount	
Debit	Credit		Debit	Credit
686100		Depreciation Provisions, Reserves, and Value Losses (IDR)	XXX	
	153000	Provisions for Pensions and Similar Obligations		XXX
		This entry reflects the annual accounting for the retirement referral grant provision for the year 2015.		

This entry ensures that the retirement referral grant provisions are systematically recorded and updated each year based on the calculations for all employees.

Determining the Accounting Entry for the Retirement Referral Grant:

Any employee in the institution who is set to retire in the last month of their service, within the framework of the retirement referral grant, receives a two-grade promotion distributed over the last three years of their employment. This is

done to increase the value of the retirement referral grant and the retirement pension.

For example, if the employee's grade is 02/11, it becomes 02/13, which increases the basic salary according to the new grade. Consequently, all allowances, bonuses, and benefits linked to the salary over the 36 months (3 years) preceding retirement are affected. This also influences the social security contributions and the associated compensations. Below is an example of four employees whose grades were increased during retirement:

Table (08): Example of Four Employees with Grade Increases

Description	Employee 01	Employee 02	Employee 03	Employee 04
Initial Grade	03/07	05/11	04/15	02/18
Initial Basic Salary	27,265.87	30,667.00	35,338.87	44,607.87
New Grade	03/09	05/13	04/17	02/20
New Basic Salary	28,835.62	32,366.75	42,477.50	53,932.12

Source: From the company's documents

The newly added grades for the retiring employee cover the previous 36 months of work. This grade increase raises the basic salary and consequently increases all compensations, allowances, and bonuses calculated as a percentage of the basic salary. Therefore, the monthly position salary increases, affecting the calculation base for social security contributions.

As a result, the organization grants the retiring employee a supplement representing the difference between the previous net salary and the current salary after the grade increase. This supplement is subject to 10% income tax and social security contributions.

This adjustment affects the retirement pension due to the increased social security contributions over the three years preceding retirement.

To calculate the retirement referral grant, the organization selects the best salary during the last three years after the grade promotion.

The calculation is as follows:

$$\begin{aligned}
 & \textit{Retirement Referral Grant} \\
 & = \textit{Best Salary During the Last 3 Years After Promotion} \\
 & \times \textit{Years of Service}
 \end{aligned}$$

This grant is subject to a 10% income tax.

It should be noted that the grade promotion for retirement purposes is capped at grade 20/05. Any grade increase beyond this level results in a benefit capped at 25% of the basic salary. Thus, grade increases end at grade 18/05.

Conclusion

The financial accounting system focused on employee benefits, which are the foundation for evaluating the performance and productivity of human resources. This system adopted the International Accounting Standard IAS 19, related to employee benefits, which stipulates the treatment of all forms of benefits provided

by the organization to human resources in return for the services they performed during their professional lives. It explained all aspects related to the accounting treatment of these benefits, as well as the methods of their valuation, recognition, and disclosure.

According to the financial accounting system SCF, employee benefits are privileges granted by the organization to active and inactive employees in exchange for the services they performed, which the organization bears in the form of expenses for predetermined work or under contractual conditions. These benefits result from short-term or long-term commitments, based on legal obligations (laws, collective agreements, employment contracts, etc.) or implicit obligations, placing a payment obligation on the organization.

The financial accounting system classified these benefits into short-term benefits, which are related to payments during the current financial year, including primarily all wages and related contributions, in-kind benefits, paid leave, and various annual allowances. It also classified them into long-term benefits, which are related to payments due after the end of the financial year and over the long term, consisting of end-of-service benefits related to retirement.

Textile is one of the economic enterprises contributing to economic development in Algeria, specifically in the field of textiles and fabrics. Its activity focuses on various resources that it invests in. The enterprise is characterized as a productive and commercial institution with a large human resource and offers many benefits and privileges to retain them, whether these are rights guaranteed by law or included in the collective agreements of the enterprise.

These benefits include short-term benefits such as a wage structure supplemented with various allowances, compensations, and bonuses corresponding to the tasks assigned to each worker and the activity performed. They also include contributions related to these wages, social security, mutual insurance, and other benefits such as paid holidays at the end of the year and various material privileges.

The retirement referral grant is the most important long-term benefit provided by the enterprise for employees who retire. The enterprise allocates a provision during the years of employment to cover this expense upon retirement. This is primarily based on the reference salary according to the enterprise's collective agreement and actuarial aspects (financial and demographic assumptions) prepared by the enterprise based on the promotion grades granted upon retirement.

Through the current study, the variety of benefits offered by Textile in the province of Batna is evident due to the diversity of available positions, which significantly affects the accounting aspect and, consequently, the organizational aspect of human resources.

According to the financial accounting system (SCF), an enterprise that adopts the defined benefits system must allocate a provision or reserve for pensions, retirement supplements, and compensations due to retirement, or similar benefits

for its employees. These provisions are recorded under sub-account 153 as Provisions for Pensions and Similar Obligations.

The formation of a provision for retirement pensions has a significant and clear impact on the company's balance sheet accounts through defined benefit plans, recorded under Account 153, which falls under non-current long-term liabilities. Consequently, this affects the balance sheet equilibrium by increasing the company's liabilities and reducing the net result, especially since the debit account is Account 68, which influences the income statement.

The retirement referral grant impacts the period's net result due to the benefits accrued by employees for the current year, recorded as costs to be paid to them, leading to a decrease in the net result. On the other hand, the recognition of costs related to benefits accrued by employees from previous years is recorded in Account 11 (Revaluation of Results), which is part of equity. This is because these costs cannot be charged to a single year's result due to their typically large amounts.

Textile creates a provision for each employee starting from their sixth year of service and records a provision for the sixth year that covers all preceding years. This practice increases the company's expenses by allocating costs from previous financial periods. However, this is justified by the uncertainty of the employee's continued service before six years, as stipulated in the company's collective agreement.

Recommendations:

Despite the lack of information and ambiguity regarding employee benefits provided by the company under study, this research aimed to offer comprehensive insights. Several key points emerged regarding employee benefits under the **financial accounting system** in Algerian economic institutions. The following recommendations are proposed:

- Establishing an Active Financial Market in Algeria to obtain accurate, reliable, and credible financial assumptions that enable companies to perform accurate calculations.
- Continuous Training for Accountants to expand their accounting and financial knowledge, ensuring greater effectiveness and efficiency in the accounting and financial field for the proper application of new accounting practices.

Reference List

1. Presidential Decree No. 07-304 specifying the indicative salary grid for employees and the wage system, (2007).
2. Akouch, M. E. A. (2011). *The Impact of Applying International Accounting Standards on the Financial Profitability of Algerian Economic Institutions* [University of Algiers]. Algiers.
3. Bakari, B., & Medani, T. (2015). Evaluating the Application of End-of-Service Compensation According to the Financial Accounting System in the National Well Services Company. *Journal of Algerian Institutional Performance*(07).

4. Banat, H. A. I. (2022). The Accounting Information System as a Mechanism for Human Resource Management. *Arab Journal of Scientific Publishing*, 05(50).
5. CNR. (2024). *Transferred Pension and Retirement Grant*. National Retirement Fund. <https://dz.cnr.dz/la-poncion-et-lallocation-de-revision>
6. Dmamd, S. (2019). *The Impact of Accounting Disclosure for Human Resources Accounting on the Quality of Accounting Information: A Study of a Sample of Economic Institutions in the Province of Adrar* [Ahmed Draia University]. Adrar, Algeria.
7. Hassouna, F. (2007). *Human Resource Management* (1st ed.). Osama Publishing and Distribution House.
8. IAS. (2024). *International Accounting Standard (IAS) 19 – Employee Benefits*. Arab Accountant Journal. https://www.aam-web.com/ar/create_pdf/standard/27
9. Jassim, A. N. (2024). *The Possibility of Measuring the Financial Costs of Human Resource Value and Disclosing Them in Private Educational Institutions*. Cultural Department. <https://ao-journal.org/journal/edition/20/20-7.pdf>
10. Jumaa, K. H. (2004). *A New Approach to Measuring Human Resource Services*. Retrieved 20/05 from <https://www.iasj.net/iasj/download/fc8d33a7413e986d>
11. Lakliti, E. A., & Aali, M. A. (2017). Accounting for the Retirement Referral Grant According to the Financial Accounting System: A Case Study of the Cement Company in Tebessa. *Al-Muqriz Journal of Financial and Economic Studies*, 01(02).
12. MGPAP. (2024). *Mutuelle Générale des Fonctionnaires des Administrations Publiques (MGPAP)*. <http://www.mgpap.org.ma/index.php/en/nos-services/prevoyance/dossier-de-retraite>
13. Miyahi, D. A. K., & Al-Hashimi, S. J. (2022). The Impact of Applying the Employee Benefits Standard for the Public Sector on the Informational Content of the Government Accounting System. *Al-Riyada Journal for Finance and Business*, 03(01).
14. Decision specifying the rules for valuation, accounting, the content of financial statements, their presentation, as well as the chart of accounts and operating rules, (2009).
15. Rabia, H. B., & Hassiani, A. (2013). *Al-Wadih in Accounting According to the Financial Accounting System (SCF) and International Standards (IAS/IFRS)* (1st ed.). Click Publications.