Performance Measurement and Management

by and for Indicators in Middle Management

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Abstract:

This study aims to identify the performance indicators that can be used to analyze the actual cost performance of the employee recruitment and qualification program. The study was conducted at the Algerian Telecom Company in Aflou city, and information and data were collected from the departments of human resources and accounting. Among the most important results that were obtained is that Leaders in the organization demonstrated a great desire to learn how to analyze the actual cost performance of an employee recruitment and qualification program. According to the company's direct official, a large part of the budget is allocated to this program, but there is a clear absence of the process of measuring and tracking the method of spending, In the event that there is a measurement and tracking of the spending method, it will be done after

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the completion of the implementation of the program, That is, there is no opportunity to correct the situation, or address deficiencies in the spending method. Through cost performance analysis, the project manager in general and the human resource department manager in particular can measure the extent of deviation that has occurred between the budget allocated for work performed and the actual cost of work performed, after arriving at these results, the direct supervisor can predict the size of the future costs of the remaining work and the total costs.

Key words: Employment of workers; Qualification of workers; Cost; Performance indicators; cost performance.

JEL CLASSIFICATION : D61, L25, M51, P47, J32

1. INTRODUCTIO:

The achievement of the organization's strategic goals is directly related to the extent of the human resources department's ability to provide the organization with individuals who are able to put organizational strategies into action.

The human resources department is also restricted by a budget to complete this process, and therefore it faces major challenges, the most important of which is not to deviate from this budget and to control the cost of expenditures related to the employment and rehabilitation program.

Therefore, the human resources department officials at the Algeria Telecom Company must analyze the actual cost performance of the program for hiring and qualifying workers to monitor the level of spending, and will it be within the budget allocated or not?

In light of the above, the following main problem can be posed:

How to analyze and monitor the performance of the cost of expenditure for the functions of the human resources department in the Algeria Telecom Company?

To answer this problem, we propose the following hypothesis:

The process of analyzing the actual cost performance of the employee recruitment and qualification program covers several stages, starting with the identification of key performance indicators and ending with the comparison of these standards with the actual performance achieved.

This study aims to achieve the following objectives:

- Learn about human resource management practices.

- Determining the indicators used in analyzing the cost performance of different jobs, especially the human resources function.

- Learn about quantitative analysis techniques in human resource management.

- Learn how to manage the costs of human resource management programs.

- Learn how to plan and control human resource functions using performance indicators.

- Learn how to analyze the actual cost performance of human resources: department jobs.

2. SUBJECTSAND METHODS

Recruitment and qualification program Human resources management is a set of activities and practices related to human resources in light of the development of human capital, These activities and practices cover a wide range of functions and tasks, All of them have important aspects that include dimensions related to attracting human resources and raising their capabilities and skills, This is to achieve quality performance in line with the organization's strategy, Accordingly, we will try in this research paper to identify the most important functions practiced by economic institutions in order to acquire human competencies and enhance their loyalty to the institution. (Ronald R. Sims, & William and Mary. , 2019, p. 4).

Attracting Human Competencies

The definitions of the concept of polarization set by including:

-Polarization refers to the search for and investigation of qualified human cadres and work to attract them and choose the best among them to work in the organization. (Baum&Kabst, 2013)

2.1Training

It is an organized and continuous activity based on scientific foundations that aims to develop the competencies of individuals and expand their knowledge and skills. (Gilley &Maycunich, 2000)

2.2 Incentive

Incentive is defined as encouraging individuals and motivating them to be active in their work in order to achieve the goals of the institution. (Design, 2011, p. 3)

2.3 Elementsof Cost Performance Analysis Indicators

Key performance indicatorsare group of quantifiable measures that a company uses to gauge its performance over time.

These metrics are used to determine the company's progress in achievement its Strategic, and its operational goals, and also to compare a company's performance against other business within its industry. (David Parmenter, 2019, p. 6)

2.3.1 BAC budget at completion

Is simply the total budget cost of the project, Or The original budget for the project they have the same meaning (Kailash & Archana , 2019, p. 170)

2.3.2 Budgeted Cost of Work Schedule (BCWS)

- Schedule costs according tospend it from the first day to the last day of the project life.
- Schedule costs accordingto its spend time in the future. (Dennis Comninos, 2002, p. 218)

2.3.3 Percentage Complete PC

A measure of the activities performance and its progress at time now or at this moment. (Melanie McBride, 2016, p. 59)

2.3.4 Budget cost of work performed (BCWP)

- It is the costs that should be expended on work done.
- budgeted cost of work that have been done
- the Approved budget for the work Actually. (Ivan & Kenneth , 2020, p. 306)

Notice that we have work has been done !

Question: how much does the programmed cost of doing this work!

2.3.5 Actual Cost for Work Performed ACWP

The actual cost of the work that has been done. (Bharat Bhushan & Dhall, 2011, p. 115)

2.3.6 Project Variance PV

We can determine the variance of the project by two ways the project Cost variance and project schedule variance.

2.3.7 Project Cost Variance

Deviation between budget cost of work performed and actual cost of work performed. We can find it by:

Cost variance CV and

2.3.8 Cost performance index CPI

Through the variance of the project cost, we can determine the extent of the deviation that occurred between the budget allocated for the work performed and the actual cost of the work performed.

It can be calculated as shown in the following table:

Table (01): Show the Method of Calculating Cost Variance with Interpretation of the Result.

CV = BCWP – ACWP Cost performance index CPI CPI = BCWP / ACWP	
Explaining resulte	
CPI = 1 CV=0 **on budget**	this activity is performing as planned in terms of cost. this means actual cost for completing the project will be equals to the actual allocated budget.
CPI <1 CV<0 **over budget**	this activity is performing quite badly in terms of cost. this means your actual cost for completing the project would be higher than the actual allocated budget.
CPI > 1 CV>0 **under budget**	and if it's a positive , here it's a good news for your project , it's called under budget , This means that the actual cost is lower than the cost actually programmed this activity is performing by better than its planned in terms of cost.

Source: Prepared by the researcher based on Harold Kerzner, Project Management: A Systems Approach to Planning, Scheduling, and , Wiley, 2 mars 2022, 13th Edition, p 650-651-684.

3.Steps to Analyze the Actual Cost Performance of the Employee Recruitment and Qualification Program in the Algerian Telecom Company

The Director of Human Resources Department in the Algeria Telecom Company seeks to acquire human competencies and Training and motivating them to keep pace with future technological developments, In order to reach these competencies, the director of human resources management must perform the following process, which is divided into a set of activities, They are explained in the following table.

Table (02): Show information about human resource management process.

Activities Code	Description Activities	Duration time week	Procondition	BAC
A	Determine needs according to production plans	1	Start	30
B	Determining the specific needs of employees	2	Start	24
C	Polarization	2	B-A	50
D	organizational analysis it means training need	1	C	60
E	Who needs training	2	C	40
F	Training	3	D-E	60
G	Incentive	2	Start	10
PROCESS				274

Source: Human Resources Department, www.algerietelecom.dz.

From the table, we find that activity (A) has been estimated at an initial cost of 30 monetary units.

And the time to complete it is a week, The same analysis for the rest of the activities.

As for the operation as a whole, its total cost capacity is 274 monetary units.

The Question

Q- Analyze the cost performance of the whole process?

To analyze cost performance, a number of steps must be taken

3.1 Calculate the budgeted cost of the work schedule (BCWS)(in the end of the fifth week.

•How much project cost proposed until the fifth week ?

•How much project cost proposed only in the fifth and8ixth week ?

Answer

Table(03): Budgeted Cost of the Work Schedule.

Duration time Week	Procondition	BAC	Week / Activity	1	2	3	4	5	6	7	8	9
1	Start	30	A	30								
2	Start	24	B	12	12							
2	B-A	50	C			25	25					
1	C	60	D					60				
2	C	40	E					20	20			
3	D-E	60	F							20	20	20
2	C	10	G	5	5							
		BCWS part	----	47	17	25	25	80	20	20	20	20
		BCWS cumulative	----	47	64	89	114	194	214	234	254	274

Source: Prepared by the researcher.

These values were obtained using the budgeted cost of the work schedule:

• From the table, we note that activity (B) begins in the first week, and the duration of its completion is two weeks, and each week requires 12 monetary units, and the same for the rest of the activities;

• Through the table, we can estimate the expected weekly costs, by summing each

column. For the first week, it costs us 47 monetary units, while the second week costs us 17 monetary units, and so on for the rest of the activities;

• We can also calculate the cumulative cost or cumulative expenditure that appears in the last row.

After calculating the budgeted cost of the work schedule, the previous questions can be answered:

Question	Answer
How much project cost proposed until the fifth week ?	194
How much project cost proposed only in the fifth week ?	80
How much project cost proposed only in the 8ixth week ?	20

Source: Prepared by the researcher.

budgeted cost of the work schedule (BCWS) in the end of the fifth week

Table(04): budgeted cost of the work schedule (BCWS) in the end of the fifth week

Duration time week	Procondition	BAC	Week ⟍ Activity	1	2	3	4	5	6	7	8	9
1	Start	30	A	30								
2	Start	24	B	12	12							
2	B-A	50	C			25	25					
1	C	60	D					60				
2	C	40	E					20	20			
3	D-E	60	F							20	20	20
2	C	10	G	5	5							
		BCWS part	----	47	17	25	25	80	20	20	20	20
		BCWS Cumulative	----	47	64	89	114	194	214	234	254	274

Source: Prepared by the researcher.

Table(05): budgeted cost of the work schedule (BCWS) in the end of the fifth week.

Activity	duration time week	BCWS
A	1	30
B	2	12+12
C	2	25+25
D	1	60
E	2	20
F	3	0
G	2	5+5
		194

Source: Prepared by the researcher.

BCWS of in the end of the fifth week = 194

3.2 Calculate the Budget cost of work performed

In the end of the fifth week, We took the chart from the company's website, and we found in it data about actual work until end the fifth week. …………..

Look the following a chart.

Table (06): Progress Report at the End of the Fifth Week.

Activity	Duration time Week	BAC	BCWS	Percentage complete PC%
A	1	30	30	100
B	2	24	12+12	100
C	2	50	25+25	100
D	1	60	60	90
E	2	40	20	41
F	3	60	0	00
G	2	10	5+5	00

Source: Human Resources Department ,www.algerietelecom.dz.

Table(07): Budget Cost of Work Performed.

activity	duration time week	BAC	BCWS	PC %	BCWP=PC*BAC Should be expended on these activities
A	1	30	30	100	30
B	2	24	24	100	24
C	2	50	50	100	50
D	1	60	60	90	54
E	2	40	20	41	16,4
F	3	60	0	00	0
G	2	10	10	00	0

Source: Prepared by the researcher.

From the above table it can be said that the completion percentage until the end of the fifth week of activity (A) was 100% and we should have spent 30 monetary units on this activity....and the same for the rest of the activities.

3.3 Actual Cost For Work Performed (ACWP)

In the end of the fifth week. We took the chart from the company's website and we found in it data about actual cost of work that has been done until the end fifth week …………. Look the following a chart

Table (08): Actual Cost For Work Performed.

Activity	BAC	PC%	ACWP
A	30	100	32
B	24	100	24
C	50	100	50
D	60	90	66
E	40	41	33
F	60	00	00
G	10	00	00

Source: Human Resources Department ,www.algerietelecom.dz.

From the above table it can be said that the percentage of completion until the end of the fifth week of activity (A) was 100, and the actual cost actually spent until the end of the fifth week is 32 monetary units. The same applies to the rest of the activities.

3.4 RESULTS

Project Cost Variance (CV)

Deviation between budget cost of work performed and actual cost of work performed.

At the end of the fifth week, the Director of the Human Resources Department wanted to evaluate the performance of the cost of expenditures with regard to the process of attracting, training and motivating human competencies.

Table(09): How to Calculate the Cost Performance Index.

Activity	Duration time week	BAC	BCWS	PC%	ACWP	BCWP=PC*BAC	CV=BCWP-ACWP	CPI=BCWP/ACWP
A	1	30	30	100	32	30	-2	0,9375
B	2	24	24	100	24	24	0	1
C	2	50	50	100	50	50	0	1
D	1	60	60	90	66	54	-12	0,818181818
E	2	40	20	41	33	16,4	-16,6	0,496969697
F	3	60	0	00	00	0	0	/
G	2	10	10	00	00	0	0	/

Source: Prepared by the researcher.

In the end, we can clarify the performance of the activities in terms of the cost of expenditure, and this is after 5 weeks of work

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Table(10): The Table Explains the Results Obtained from the Previous Table.

Activity	Performance of activities in terms of cost of expenditure
B – C CPI = 1 CV=0 On Budget	-this activity is performing as planned in terms of cost. it means actual cost for completing the project will be equals to the actual allocated budget.
A-D-E CPI <1 CV<0 Over Budget	this activity is performing quite badly in terms of cost. it means your actual cost for completing the project would be higher than the actual allocated budget.
CPI > 1 CV>0 Under Budget	and if it's a positive , here it's a good news for your project , it's called under budget , it means that the actual cost is lower than the cost actually programmed this activity is performing by better than its planned in terms of cost.

Source: Prepared by the researcher, Depending on the previous table.

4.CONCLUSIONS

The process of analyzing the actual cost performance of the employee recruitment and qualification program covers several stages, starting with identifying key performance indicators and ending with comparing these standards with the actual achieved performance.

Through cost performance analysis, the project manager in general and the human resource department manager in particular can measure the extent of deviation that has occurred between the budget allocated for work performed and the actual cost of work performed,

Where he finds himself before three options, namely

- Spending according to the allocated budget.

- Spending more than budget.

- Spending under budget.

After arriving at these results, the direct supervisor can predict the size of the future costs of the remaining work and the total costs.

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