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The Role of Training in the Effective Functioning of Intellectual Capital: Case of Algerian Telecom Corporation-Tebessa

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Abstract: In this competitive and rapidly changing era, most of the business organizations are highly concerned to provide their employees with training throughout their careers so that they will remain enough motivated and focused to their work. But the success of any training program depends on effective construction of its pre-defined schedule or model. The training model must be constructed on the basis of particular training needs and consisted of all relevant and important steps which are to be followed by training sessions. From this report appears the importance of training to develop intellectual capital, to promote knowledge and skills. To test the importance of training for survival and continuity of organizations, our study on Algerian Telecom Corporation Tebessa Agency aims to measure the contribution of training and its relationship with other variables. The results show that the relationship between training and intellectual capital is more important than its relationship with the performance knowing that these two types of connections are statistically significant.

Keywords: Training, Performance Appraisal, Training Needs, Intellectual Capital.

Introduction
The business environment has faced a great transformation which led to a reconsideration of human resource and the necessity to make it more flexible and adapted to the various transformations. So, this resource needs attention through the preparation of its development as well as improving its performance and the search for the tools in developing it. Considering human resource training is one of the most important means used to raise its performance and
build powerful productive human force capable to lift the challenge and achieve excellence. Institutions try to initiate the interest in training for improving the capacity and the skills. Also, the objectives of companies can beings reached through the human performance by taking advantage of their full potential.

The rapid development of technology requires an update and a renewal of the intellectual skills to avoid the senility in knowledge acquired. Therefore, it is necessary to apply the training in the institution in order to develop the capabilities and skills of its intellectual capital for more performance. Employee training is a tool that managers can utilize to help Employees Bridge the gap between their present level of performance and their desired level of performance. The challenge for the organization is to design training options that give employees the information or skills they need and then measure whether those training options were effective in producing desired outcomes. Managers have different views of how much training is needed for an employee to produce desired performance outcomes. It's important to understand that most employees do not come to their jobs with the total knowledge and experience required to perform perfectly. They need a manager to select appropriate training options so that they may advance to a desired level of performance. Managers can help the firm increase its overall capacity by looking for unmet training needs and communicating them to trainers and human resources experts.

In this context, this paper tries to answer the main question concerning the measure of the contribution of the training in the activation of the performance of the intellectual capital using data from Algerian Telecom Corporation.

The economic theory stipulates the employment and capital as the factors of production. The development of the industry and the globalization revealed the importance of the technical progress to develop the productivity of these two factors. It is in this sense that appears the importance of our study seen the relationship between the technical progress - human capital and training.

**Background of the Study**

Organizations are facing increased competition due to globalization, changes in technology, political and economic environments (Evans, Pucik & Barsoux, 2002) and therefore prompting these organizations to train their employees as one of the ways to prepare them to adjust to the increases above and thus enhance their performance. It is important to not ignore the prevailing evidence on growth of knowledge in the business corporate world in the last decade. This growth has not only been brought about by improvements in technology nor a combination of factors of production but increased efforts towards development of organizational human resources. It is, therefore, in every organizations responsibility to enhance the job performance of the employees and certainly implementation of training and development is one of the major steps that most companies need to achieve this. As is evident that employees are a crucial resource, it is important to optimize the contribution of employees to the company aims and goals as a means of sustaining effective performance. This therefore calls for managers to ensure an adequate supply of staff that is technically and socially competent and capable of career development into specialist departments or management positions (Afshan, Sobia, Kamran & Nasir 2012, 646).
question that may arise in many instances is why human resources are important. For Hougar (2006), human resources are the intellectual property of the firm, employees prove to be a good source of gaining competitive advantage and training is the only way of developing organizational intellectual property through building employees competencies. The management of human resources in Africa in general and Algeria in particular is rather challenging as most organizations have difficulties finding proper human resources. This may partly be a result of the different kinds of problems.

**Problem Statement**

Despite the increasing effects on training of organizational employees by organizations, there is still limited literature on human resource development issues in developing countries (Debrah & Ofori, 2006) and increasing concerns from organizational customers towards low quality services in the telecommunications sector. It is further worth noting that while much is known about the economics of training in the developed world, studies of issues associated with training in less-developed countries are rarely found. The existing studies in this relation have taken a general human resource management focus creating a gap on issues such as the effect of training on employee performance. This study will contribute in minimizing this gap in the literature and there by establish the basis to understanding of some aspects of human resource management in general and training in particular in Algeria.

In light of the above background, the aim of the study is to examine the effects of training on employee performance within the telecommunication industry in Algeria. It is expected that the findings of this study will help highlight the ways in which human resource training can be beneficial not only to the organizations but also to the career development of its employees.

The remainder of this paper will be structured as follows: section 2 presents a review of the literature on the relationship between training and performance with contribution of the training and development on organizational performance. Section 3 describes the methodology used to evaluate the role of training on performance in Algerian Telecom Corporation-Tebessa. Section 4 is reserved to the results and discussions. Section 5 concludes the study.

**Training and Performance: Literature Review**

Marr et al. (2003) define Training as administrative and regulatory efforts linked to the continuity condition aimed at changing the exposure and behavior in current or future individual properties in order to meet the requirements of the job or to develop practical performance and better behavior. In other words, training includes activities aimed to improve the recipient’s performance or to attain a required level of knowledge or skill. Concerning intellectual capital, it create new source of competitive advantage. The fortunes and values of firms can increase or decrease depending on how well they create, capture, and leverage their knowledge. To explain the relationship between training and performance, Tannenbaum et al. (1991) suppose that the constant pressure to maintain superiority in the marketplace prompts the need to constantly upgrade employee skills and knowledge and to improve positive work-related attitudes. The method most commonly used to attain these goals is training and development. According to Armstrong (2006) and Haunstein (1998) the objective of training and development, as asserted by is to develop the skills and competences of employees to improve their performance; to help
people grow within the organization in order for the organization to meet its future HR needs. According to Drummond (2000), training involves the use of formal and informal processes to impart knowledge and help people acquire the skills necessary for them to perform their jobs satisfactorily, while development prepares employees for other positions in the organization and increases their ability to move into jobs that may not yet exist. Development therefore is about preparing for change in the form of new jobs, new responsibilities, or new requirements. Therefore, training and development is a necessary effort of a company to improve quality and to meet the challenges of global competition and social change. Vinesh (2014) mention that it has been proved by many studies in the past that there are sound connections between various training and development practices and different measures of organizational performance.

In their research on public universities in Jordan, Faris et al. (2014) shows that the relationship between job training, quality training, and training strategy, and employee performance is positive and significant. Quality training was found to be the highest contributor to employee performance. The study conducted by Muhammed and Abdul (2015) on Telecommunication Sector of Pakistan showed that majority of the employees satisfied with the strategic training of the firm. There are very few organizations which fulfilled the demand with reference to the requirements of strategic training and development. The analysis of Thang et al. (2010) indicates that the relationship between training and firm performance in Pakistan may be mediated by employee knowledge and attitude. Furthermore, capital investment or organizational strategy does moderate the training performance relationship. To find the relationship of different variables, training, compensation, feedback, and job involvement on productivity of employees in electric supply company in Pakistan, Sabir et al. (2014) indicate that the relationship of various variables is positive impact on employee productivity. Results also indicate that reliability of instrument and variables is creating positive impact on employees of Electricity Supply Company in Pakistan. The study of Ombayo et al., (2014) revealed that more the operatives were exposed on training higher the level of productivity. The study recommends that Sugar firms in Kenya should incorporate quality and frequent training of operatives to increase their productivity level.

While training is seen as a motivational factor in the process of self-development, it is also important to understand from the organizational point of view whether training has any positive connection with organizational productivity. This is a dimension of this research study. The organizational growth undisputedly depends upon the productivity of its workforce. Employee productivity, often referred to as workplace productivity (Fuller, 2016) is in fact an assessment of the efficiency of a worker or group of workers or the effectiveness in which a work is performed. It is therefore often defined as a “measure of effectiveness” with which an organization can make use of its resources. (Asmild et al, 2007; Jaaskelainen, 2010) Here measure of effectiveness refers to the efforts that an organization is able to make in order to achieve its goals and resources and training is one such effort. However, since most businesses talk of competitive advantage and profitability, Fuller (2016) still measures the effectiveness through the classic view of productivity which is “measuring outputs in relation to inputs” in a given amount of time. In their study on Maalysia manufacturing organizations, Ilyas et al. (2017) shows that both general skills and strategic skills have a positive relationship with employee productivity. The practical implication would be in the form of guidelines for training experts and HR mangers ensuring a mix of general and specific (strategic) training to impact the productivity. The study done by Asfaw et al. (2015)
at District Five Administration Office, Addis Ababa, Ethiopia showed that Training and development had positively correlated and claimed statistically significant relationship with employee performance and effectiveness. It is recommended that this District shall maintain providing employee training and development activities and ensure the participation of employees in planning, need or skill deficit identification and evaluation of training and development programs.

**Methodology of the Empirical Study**

Telecom sector of Algeria is considered as the backbone of Algerian’s economy and the biggest employer relative to other sectors. So as the biggest and strongest sector, it has major responsibilities in delivering perfect services to its customers as well as to its employees. The current scenarios, employee training has outmost importance for the sake of improving the productivity, which moves towards gaining competitive edge (Quartey, 2012). Training is relatively important for employees to gain confidence and produce positive results in achieving their goals. Employee training is considered as the planned step towards facilitating employees to seek job-related knowledge including behaviors and skills (Dennis and Griffin, 2005). In human resource development, the theories and empirical evident supports Training as strategic positioning which have a direct relationship with development and achieving goals mainly.

**Presentation of Algeria Telecommunications Corporation**

Since its inception, the corporation had known many different changes with the aim of increasing its efficiency, effectiveness and consistency. This corporation founded a result of a stunning development in information and communication technology. Since 1999, the Algerian government deep reforms in the postal sector and transportation until the new law for the private sector in the August 2000. A law came to end the government monopoly on postal and transportation activities and the separation between the organization and the exploitation and management of networks. Applying this principle has been an independent control authority administratively and financially and collaborators one mailing activity costs and postal financial services in an institution.

**Study Methodology**

All scientific research depends on methodological framework followed to confine the various aspects and dimensions in stages to facilitate study. This frame serves as a portal to view the study approach, selection of the sample, methods of study, sample and display member properties, results and analyses to answer various questions and check the assumptions made about the subject of the study which concern the role of training in the effective functioning of intellectual capital. The sampling basis covers the 285 employees of Algeria Tebessa Agency of telecommunications which are divided on 1 senior employee, 108 employees, 98 executives assistant and 78 controls assistant. Our sample includes 50 among the 285 employees and 50 questionnaires are distributed. 42 only are returned with 40 are valid. In our data processing, the measuring axes statements were approved by the famous Likert innovative rate ladder (Rensis Likert) and treatment were done using SPSS.
Results and Discussion
This includes the presentation and analysis of the study results according to the objectives and assumptions listed previously. For our sample, 62.5% are female and 52.5 are between 30 years and 40 years. Concerning educational background, 15% high school, 17.5% diploma of the institute, 52.5% university and 15% with graduate study. The distribution of the sample members according to the years of experience variable shows that 22.5% of employees have less than 5 years, 40% have from 5 to 10 years, 22.5% have from 11 to 15 years and the rest have more than 15 years.

Concerning the Variable Training, Results Show that
- The mean of total training axis reached (3.95) a high degree by Likert scale, and standard deviation reached (0.337) with the result (agree) which shows that there is a consensus on the first axis vertebras of enterprise training.
- The mean was the highest value (4.28) at paragraphs (01, 06, 07) and standard deviation respectively reached (0.452 ; 0.716 ; 0.640) and with the result (strongly agree) that through these results reflected approval of respondents that training in Algeria Telecom is a tool of self-development, skill development and increases staff productivity and spirit.
- The remaining paragraphs the mean was confined between (3.65) and (4.20) and standard deviation (0.439) and (1018) and got stuck between the results (agree, strongly agree) that through these results, it is clear that respondents responsive to the idea that training increases better behavior and skills, performance and experience of the employee and reduces error, with the exception of paragraph (15), which its mean was (2.75) and its standard deviation (1.296) and the result of neutrality that most respondents were ambivalent response to the paragraph “that managers fear outweigh their employees After training”, which explains the neutrality of any administrative allergies away.

About the Variable Intellectual Capital Performance, Results Show that
- The mean of total performance of intellectual capital axis (3.76) which is a high degree by Likert scale, and by standard deviation reached (0.442) with the result (agree) which shows that there is agreement on the second axis paragraphs of performance of intellectual capital in the organization.
- The mean reached the highest value (4.38) at paragraph (18) and standard deviation (0.490) and the result (strongly agree) that this result through clear consent of respondents that professional expertise possessed by the intellectual capital-employee- in the corporation contribute to providing solutions to the problems facing them in their work.
- The remaining paragraphs mean was confined between (3.43) and (4.20) and a standard deviation of (0.687) and (1.059) and got stuck between the results (agree, strongly agree), through these results. It is clear that respondents responsive to the idea that the more the institution owns an intellectual capital full of qualifications and skills, expertise and certification and knowledge necessary to perform his duties he performed an increasingly advanced and enterprise should pursue maintain intellectual capital to continue play Required to increase, with the exception of paragraphs (20, 28, 29), which averaged computational respectively (3.18 ; 3.30
; 3.38) and standard deviation (1.059 ; 1.043 ; 1.125) and the result of neutrality that most respondents were neutral response to these paragraphs, which revolves around freedom of intellectual capital in the performance of its work and its match with his qualifications and testing institution to the required qualifications for the post, which shows that neutrality to acceptance or non-acceptance of these paragraphs by sample survey.

Hypothesis Testing
The study hypotheses will be tested through display and interpretation of the results and discuss them with what has been achieved through examining and clarifying the relationship between variables.

*One sample Kolmogrov-Smirnov test:* To check how to follow a normal distribution of data as necessary to test hypotheses because most parametric tests require that the data distribution is normal, and that is after all the forms and gathered from the study sample, the following table illustrates this:

<table>
<thead>
<tr>
<th>Axis of the questionnaire</th>
<th>Section content</th>
<th>Z-test value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Training</td>
<td>0.758</td>
<td>0.613</td>
</tr>
<tr>
<td>II</td>
<td>intellectual capital Performance</td>
<td>0.901</td>
<td>0.391</td>
</tr>
<tr>
<td></td>
<td>Questionnaire as a whole</td>
<td>1.010</td>
<td>0.260</td>
</tr>
</tbody>
</table>

The previous table shows the normal test results where the value of the level indication for each part in the questionnaire is greater than 0.05 (Sig > 0.05) this indicates that the data follows a normal distribution and can use parametric tests.

*Correlation between training and performance of intellectual capital:* the next table focus on testing the relation between the two variables using Pesaran coefficient.

<table>
<thead>
<tr>
<th>The variable</th>
<th>Perform intellectual capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>0.548</td>
</tr>
</tbody>
</table>

Pearson correlation coefficient value (R = 0.548) is a moral link (sig = 0.000) and are less than moral level (0.05) indicating a direct correlation between the axes training and performance of intellectual capital.

*Correlation between training and performance evaluation:*

<table>
<thead>
<tr>
<th>Variable type</th>
<th>Variables</th>
<th>(α)</th>
<th>(β)</th>
<th>(Pearson) (R²)</th>
<th>(R²)</th>
<th>(t)</th>
<th>(F)</th>
<th>(Sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>Training</td>
<td>1.795</td>
<td>0.464</td>
<td>0.438</td>
<td>0.192</td>
<td>3.006</td>
<td>9.035</td>
<td>0.005</td>
</tr>
<tr>
<td>Dependent</td>
<td>Performance Evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The value of the correlation coefficient ($R^2 = 0.438$) is a moral link ($\text{sig} = 0.005$) is less than 0.05 moral level indicating the correlation function between training and evaluation; Either the coefficient of determination ($R^2$) reached (0.192) or (19.2%) of training contributes to the interpretation of the evaluation when the degree of confidence (95%) And the level of statistical significance ($\text{Sig} = 0.005$). By testing the value of Fisher $F$ Calculated (9.035), immaterial when moral level (5%) any ($\text{Sig} = 0.005 > (0.05)$ in the sense that the whole moral model and statistical significance.

Reported value of plants Regression (0.464), as the value of the standard deviation of hard (0.644) stood for the independent variable ($X_1=0.154$) and the value $T$ calculated for hard (2.788) and the independent variable ($X_1=3.006$), through the value of $\text{Sig}$, we find that ($0.008 = \text{sig}$) To hard and are less than moral level (5%) of any moral that hard either $\text{Sig}$ of the independent variable ($X_1= 0.005$) ($\text{sig} > (0.05$) and are less than moral level (5%) To (b) is immaterial or statistical significance.

Illustrated The results of the analysis of regression Paced Simplex which use to learn as if it was there is the effect of training on the evaluation study institution, relationship of the influence which signify Statistics of training to Evaluation.

From the above equation for the regression line can be written as follows:

$$Y = 1.795 + 0.464X_1$$  \hspace{1cm} (1)

Through the foregoing hypothesis, it’s clear that "there is a statistically significant relationship between training and performance evaluation".

Table 4: Hypothesis tests connection between training and performance

<table>
<thead>
<tr>
<th>Variable type</th>
<th>Variables</th>
<th>($\alpha$)</th>
<th>($\beta$)</th>
<th>($\text{Pearson)}$ ($R^2$)</th>
<th>($R^2$)</th>
<th>($t$)</th>
<th>($F$)</th>
<th>(Sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>Training</td>
<td>1.63</td>
<td>0.550</td>
<td>0.504</td>
<td>0.254</td>
<td>3.597</td>
<td>12.937</td>
<td>0.001</td>
</tr>
<tr>
<td>Dependent</td>
<td>Performance</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The value of the correlation coefficient ($R^2 = 0.504$) is a moral link ($\text{sig} = 0.001$) and is less than the moral level 0.05 demonstrating the direct correlation between training and performance correlation; Either the coefficient of determination ($R^2$) worth (0.254) or (25.4%) of training contributes to the interpretation of performance when the degree of confidence (95%) And the level of statistical significance ($\text{Sig} = 0.001$). By testing the value of Fisher $F$ calculated (12.937) spirits at Morale (5%) any ($\text{Sig} = 0.005 > (0.05$) in the sense that the whole moral model and statistical significance.

Reported value Coefficient of regression (0.550), as the value of the standard deviation of hard (0.638) as reported to the independent variable ($X_2=0.153$) and the value $T$ calculated for hard (2.558) and the independent variable ($X_2=3.597$), through the value of $\text{Sig}$, we find that ($0.015 = \text{sig}$) To hard and are less than moral level (5%) of any moral that hard either $\text{Sig}$ of the independent variable ($X_2= 0.001$) ($\text{sig} > (0.05$) and are less The moral level (5%) to (b) is immaterial or statistical significance.
Illustrated the results of the analysis of regression Paced Simplex which use to learn as if it was there is the effect of training on the evaluation study institution, relationship of the influence which signify statistics of training to Performance. From the above equation for the regression line can be written as follows:

\[ Y = 1.632 + 0.550X_2 \]  

(2)

Through the foregoing hypothesis, we conclude that "there is a statistically significant relationship between training and performance".

Table 5: Hypothesis tests connection between training and intellectual capital

<table>
<thead>
<tr>
<th>Variable type</th>
<th>Variables</th>
<th>(α)</th>
<th>(β)</th>
<th>(Pearson) (R²)</th>
<th>(R²)</th>
<th>(t)</th>
<th>(F)</th>
<th>(Sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>Training</td>
<td>1.37</td>
<td>0.551</td>
<td>0.385</td>
<td>0.149</td>
<td>2.575</td>
<td>6.630</td>
<td>0.014</td>
</tr>
<tr>
<td>Dependent</td>
<td>Intellectual capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The value of the correlation coefficient (R² = 0.385) is a moral link (sig = 0.014) is less than the moral level 0.05 signifying direct correlation between training and intellectual capital; Either the coefficient of determination (R²) worth (0.149) or (14.9%) of training contributes to the interpretation of intellectual capital when the degree of confidence (95 %) And the level of statistical significance (Sig = 0.014). By testing the value of Fisher F calculated (6.630) And the moral level of spirits (5%) any (Sig = 0.014) > (0.05) in the sense that the whole moral model and statistical significance.

reported value of plants Regression (0.551), as the value of the standard deviation of hard (0.893) stood for the independent variable (X₃=0.214) and the value T calculated for hard (1.535) And the independent variable (X₃ =2.575), through the value of Sig, we find that (0.133 = Sig) to hard and are larger than the moral level (5%) of any non-moral that hard either Sig The independent variable (X₃) (0.014 =sig) > (0.05) and are less than moral level (5%) to (b) is immaterial or statistical significance.

Illustrated the results of the analysis of regression paced simplex which use to learn as if it was there is the effect of training on the intellectual capital of enterprise under consideration, their Relationship of the influence which signify statistics of training to intellectual capital. From the above equation for the regression line can be written as follows:

\[ Y = 1.371 + 0.551X_3 \]  

(3)

The foregoing hypothesis manifested that "statistically significant relationship exists between training and intellectual capital".

Using the same method, we deduce the following results:

\[ X_1 = 2.532 + 0.372X_2 \]  

(4)

"There is a statistically significant relationship between performance evaluation and evaluation".

\[ Y = 0.924 + 0.718X_4 \]  

(5)

"There is a statistically significant relationship between the training and performance of intellectual capital".
Conclusion
The modern economic institutions called for arming all skills, expertise, capabilities and knowledge to attract intellectual capital as a necessity to improve performance. It is therefore possible to say that one who possesses intellectual capital with skills, abilities and knowledge is stronger than those who have money. The training is the most prominent and the best means used to renew intellectual gains (skills, abilities and experiences) of intellectual capital. Training is an investment leading to increase the performance of the economic institution. In order to be effective training, the assessment of intellectual capital performance should really determine the gap between current and expected performance. In this context, our study sought to find the kind of relationship that existed between training organizational performance with specific weight being attached to performance, evaluation and intellectual capital. It can therefore be concluded that the objectives were positively met. The researcher found out that firstly, training has an important role in the activation of both performance evaluation and performance of intellectual capital. Secondly, results show statistically significant relationship between performance evaluation and evaluation. It is recommended that organization produce a training and development plan, the aim of which shall be to empower all employees to carry out their roles to the highest standards, and deliver high quality services to customer. In these guidelines, training is broadly defined as the activity aimed at raising the standards of employee practice and thus lifting the quality of the employees, customers learning and organization experiences.

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Fuller, R. (2016). *The paradox of workplace productivity*, HBR.


