The impact of digital technologies on job enrichment A Case Study A Company of Construction of Pipelines in Boumerdes

دور التكنولوجيا الرقمية في الإثراء الوظيفي دراسة حالة شركة انجاز القنوات في بومرداس

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Received: 29/08/2019; Accepted**:** 26/10/2019

Abstract: The article aimed to know the impact of digital technology to job enrichment on KANAGHAZ Company in boumerdes. We used the descriptive method for the conceptual Framework of the concepts. In the field study, we distributed (28) questionnaire to the staff, in order to collect data about the employees of case study. After the analysis of data with SPSS, we were concluded that there is a significant positive relationship between digital technologies and Job enrichment on its various dimensions in KANAGHAZ. We proposed to train workers that help them to adapt changes, also to give them more autonomy and responsibility.
Keywords: job enrichment, motivation, responsibility, digital technologies.

Résumé: l'objectif de l'article est de connaître l'impact de la technologie numérique sur Enrichissement fonctionnel à KANAGHAZ du boumerdes. Nous avons utilisé la méthode descriptive pour le cadre conceptuel des deux notions. Dans l'étude de cas, nous avons distribué (28) questionnaires au personnel, afin de recueillir des données qui sert la recherche .Après l'analyse des données avec SPSS, nous avons conclu qu'il existe une relation positive significative entre les technologies numériques et l'enrichissement fonctionnel sur ses différentes dimensions. Nous avons proposé de former des employées qui les aident à adapter les changements, aussi de lui donner plus d'autonomie et de responsabilité.
Mots-clés : Enrichissement fonctionnel, Motivation, Responsabilité, technologie numérique.

ملخص: يهدف هذا المقال إلى معرفة درجة تأثير التكنولوجيا الرقمية على الإثراء الوظيفي في مؤسسة كنغاز ببومرداس. بعد تقديم الخلفية النظرية لمفهوم التكنولوجيا الرقمية و الإثراء الوظيفي. اعتمدنا على المنهج الوصفي في الجزء النظري، ومنهج دراسة الحالة في الجزء التطبيقي من خلال استبيان تم توزيعه على (28) إطار. و بعد تحليل أجوبة الاستبيان بواسطة SPSS ، استنتجنا وجود أثر ذو دلالة إحصائية للتكنولوجيا الرقمية على الإثراء الوظيفي بمختلف أبعاده حسب أجوبة إطارات المؤسسة

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محل الدراسة، وعلى ضوء النتائج أوصت الدراسة بمقترحات أهمها عقد دورات تدريبية لتطوير مهارات العاملين لاستيعاب التكنولوجية اللازمة لإنجاز العمل، ومنحهم حرية تمكنهم من تحمل المسؤولية.

الكلمات المفتاح: إثراء وظيفي، تحفيز، مسؤولية، تكنولوجيا رقمية.

I. Introduction

Globalization has created many challenges for multinational and local organizations such as cost of production that is on the increase day by day due to universal factors such as world recession, resource limitation, modern world computing, information technology and trends that have affected the way work is done and also changed the face of competition among organizations. Recent studies of success stories have shown that the enhanced competitive positioning of successful firms does not depend solely on the technologies they adopt, but, more importantly, builds on the strategies that their leaders deploy.

Young companies that have introduced digital technologies in their business, increasing their sources of income, outperform their peers and successfully compete with large, more mature companies. "Previously, the company required an average of 20 years to reach an estimate of a billion dollars. At present startup companies achieve this plank much earlier: Google – in 8 years, and such companies as Uber, Snapchat and Xiaomi in 4 years or . They achieved such rates to the great extent due to successful use of digital technologies. According to research of Digital IQ in Price Waterhouse Coopers, 57% of surveyed IT executives believe that an improvement in the company's digital opportunities is a top priority for the organization grows revenue" **(Timur Ablyazov , Julia Asaturova,2018, p5)**.

So the application of online tools and social media to multiple levels in society and businesses offering multidimensional opportunities at the work environment, such as enabling and facilitating the communication and circulation of information between supervisor and employees, same time bringing stronger participation to the customers leading to the benefit of better and more convenient services. These advantages allow workers to develop their job, to adapt changes, to make decisions and keeping their power and responsibility. That is called job enrichment. It has become a fundamental tool for management in improving employee's motivation and organizational growth.

The study Problem Statement

Based on what was previously mentioned, and after reviewing the literary work, the objective of the study is to find that is there any relation between digital technologies and job enrichment in KANAGHAZ .The problem of the study is the following:

What is the impact of digital technologies on job enrichment in KANAGHAZ?

The study Hypothesis:

There is a statistical significant relationship at the level of ($\alpha \geq 0.05$) between digital technologies and Job enrichment in KANAGHAZ of Boumerdes.

I-1 Theoretical Background of the variables:

In this section we were introduced the concepts, a both digital technologies and job enrichment, according to the authors of book and articles on economy and management subjects, in order to understand the origins and roots. Also the importance of these concepts in business organizations.

I-1-1The digital technologies:

There are multiple concepts Used Synonymously with digital technology, such as digital connectivity, Digital transformation, digitalization holds, but without one true definition.

This is some definitions:

The terms "digital technology" and "new media" are used to refer to a wide range of technologies which store and transmit information in digital form. This includes computers, the internet and e-mail, mobile phones and other mobile devices and cameras, video games and web 2.0 technologies the label commonly applied "participatory and interactive media. **(Web site https://www.ukessays.com/essays/education/a-study-on-digital-technologies-education-essay.php viewed (22/07/2019**).

Digitalization can be understood as aims for the organizational effectiveness by reforming existing operations with exploiting the benefits of digital technology.

Digital transformation can also be explained as a use of digital tools and applications, to the transformation of products and services into their digital equivalents. One explanation describes the concept as a widespread use of digital technology in organizations, countries and societies. Among the use of digital solutions, the concept also consists of multidimensional effects associated with the utilization of digital technology in many levels of society and organizations. **(Tomi NIEMI, 2018, P 227).**

Digital technologies will help companies respond to changing business conditions in real time. Pervasive digital connections between systems, people, places and things—sometimes referred to as the "internet of everything"—will produce a dynamic flow of digital information about where machines and people are, what they are doing, and how they are doing. Intelligent assistants will use this information to help employees make smart decisions even when they cannot calculate the implications of all that data themselves. The potential for dynamic and speedier decision-making will bring greater levels of operational flexibility and productivity to industries. **(Robert J. Thomas, Alex Kass and Ladan Davarzani, 2014, P 6).**

I-1-2The effects of digital technologies in the organisations:

Technology is changing the employer–employee relationship, and even what it means to be an "employee"; however, such effects are only briefly touched upon here as they are not the main scope of this article. It is now easy to collaborate remotely by file and data sharing, email, and videoconference. Except

when joint work needs to be synchronous and face-toface, this can change traditional modes of work, employment, and firm structures. These developments facilitate the globalization of firms, but also enable the outsourcing and offshoring of jobs beyond firm boundaries. They enable new arrangements, with more flexibility in tasks, total hours, timing, and location of work. Recently, this has manifested in the "gig economy," in which an increasing fraction of the labor force is employed in short-term, part-time arrangements without attachment to a traditional employer. The net effect of these changes on workers and firms are not well understood; society should expect to see further evolution in these areas.

ICT may further change how firms motivate employees. On the one hand, many jobs have become more decentralized. Employees with greater discretion are usually given stronger pay for performance in order to align their goals and decisions with firm objectives. On the other hand, technology leads to greater centralization in some other jobs, and makes it possible to monitor and assess employees in new ways. For example, identification badges can be designed to track an employee's location, note which colleagues they spend time with, monitor the tone of employee conversations, and note how they stand relative to each other during those conversations. Machine-learning algorithms can then, for instance, analyze such data to evaluate employee "leadership potential." **(Michael GIBBS, 2017, P4- P5).**

I-1-3 Six fields OF digital technology in the organization:

Mastering these six fields of action is critical for companies who want to succeed in the digital revolution. Surprising to us was how broadly applicable our model could be across industries and positions in the value chain. Nevertheless, not all fields are equally important for each company as the company progress in its digital journey, and industry- and company-specific characteristics should also be considered.

- Customer: New digital technologies significantly change customers' behaviours in terms of how they become informed, evaluate, and purchase. They become more connected – with each other as well as with companies. It gives more expectations of that are important like: customer experience management, customer insights, multi- and omni- channel management, hybrid customer interaction.
- Value Proposition: companies need to exploit new digital resources by developing new IT capabilities, and challenging their present value propositions or even "destroying" their business models. The integration of physical products with digital innovations such as mobile applications and sensor technologies called smart products. Companies can broaden their value propositions by designing smart services. In addition D T Creating digital ecosystems, and individualization.
- Operations: A majority of companies is the provision of an integrated IT infrastructure; they have to achieve flexible operations that are largely supported by the emergence of digital supply networks and offering digital manufacturing.

- Data: Data integration is one of the key requirements and qualifications to be successful in a digital transformation. Companies have to choose the best possible and suitable approaches to analyse the data in order to derive important insights. Data analytics, using the right techniques to process data. On the other hand the Companies have to censure security, ownership and Data privacy.
- Organization: The workplace of the future requires flexibility in place and time for new ideas, and new forms of collaboration. Organizational agility is an essential requirement for being successful in the fast-moving digital technologies. Companies that want to compete with, or even outperform, digital attackers have to create an appropriate digital mindset and pave their digital way.
- Transformation Management: the spread of digital technologies set an enormous change process in deferent levels. Such as transformation leadership, digital strategy, Digital value assurance, and change management. **(Henner Gimpel and others , 2015, p p: 10, 16)**.

I-2Definition of Job enrichment:

Before defining the concept of job enrichment, we provided the evolution of this concept.

I-2-1 Herzberg, Hackman, Snyderman and job enrichment:

In the early 1950 Herzberg and colleagues at the Psychological Service of Pittsburg had interviewed 203 accountants and engineers and asked them two 'critical incident' questions. They were asked to recall events which had made them feel good about their work and events which had made them feel bad about it. Analysis of these critical incidents suggested that factors which led to satisfaction were different from those which led to dissatisfaction at work. The characteristics of work which led to satisfaction were called 'motivators' or 'content factors' and were achievement, recognition, responsibility, advancement, growth in competence, and the work itself. The events which led to dissatisfaction were called 'hygiene factors' or 'context factors' and were salary, company policy, supervision, status, security, and working conditions. Herzberg called this a 'two factor theory' of motivation. Improvements in 'hygiene', he argued, can overcome dissatisfaction, but do not increase satisfaction and motivation. The enrichment of jobs to increase motivation and performance must focus on the 'motivators', and Herzberg suggested the application of seven vertical job loading factors. Whatever criticism it might attract, it is important to note that this technique is derived from an empirically based theory of work motivation. Herzberg's vertical job loading factors involve removing some controls on employees, increasing individual accountability for work, giving employees complete or natural units of work, giving employees additional authority, freedom or discretion, providing feedback on performance directly to the individual rather than through supervisors, introducing new and more difficult tasks, and assigning specialized tasks at which employees can become experts. Herzberg (1966) argued, with Maslow, that humans need 'psychological growth', and that job enrichment was

necessary to provide for this. He suggested that people have two types of growth needs, to develop understanding and motivation,.These needs resemble those listed by Maslow, are equally vague, and attract similar criticisms. The technique of job enrichment through use of the loading factors, however, does not rely on this aspect of the theory, as the Figure implies.

The more recent job enrichment approach developed by Hackman and Oldham (Hackman et al., 1975) attempts to overcome the universalist criticism.. Their implementing concepts are very similar to Herzberg's vertical job loading factors, and the model attempts to separate clearly the main features of work, the core job dimensions, from employee experience, the critical psychological states, which are confused in Herzberg's concept of motivator factors. The model thus sets out a causal chain, from job enrichment implementing concepts, through job dimensions and psychological states, to desirable personal and work outcomes. The main difference between this and Herzberg's approach is that the causal chain works for people with high 'growth need strength', which is not assumed to reflect mental health. This approach still does not work, however, for those with low growth need strength, low need for self-actualization, or for those who in Herzberg's terms are neurotic hygiene seekers. **(David A Buchanan, James McCalman ,2018, p 22)**.

So there are many definitions of the concept of **Job Enrichment**, here are some of them:

Involving the workers to managerial functions of the higher ranks is called job enrichment. On the other hand enlarged jobs allow workers to perform more tasks by having same position. The job enrichment also increases the self-actualization, self-control and self-respect of the workers. That thing leads to the success of the employees' performance.

The job enrichment also increases the motivation level and the performance of the employees on the work place and their tendency to achieve the goals is also becomes more possible. **(Shakeela Saleem and others , 2012, p 146)**.

Job enrichment is seen as a process where management give increasing responsibilities which are often assigned to the superiors to the employees. Several studies have indicated that when tasks are routine, monotonous, repetitive and unrewarding with an over controlled authority structure, workers tend to be highly dissatisfied, bored and demotivated.

Job enrichment is a systematic way of inspiring employees by giving them the opportunity to use a number of different types of skills and capabilities in performing a task.

Job enrichment necessitates the practices that apportion greater responsibility for arranging, organizing, and designing work to the employees who actually produce product. **(Supriya Choudhary , 2016, p 1021)**.

So there is always a positive relationship between involvement and the accomplishment of the goals by the workers when these employees' jobs are enriched.

So the concept of **job enrichment** included job enlargement, Employee Empowerment, and Motivation. Job enrichment is defined as the process of making jobs more interesting, meaningful, and challenging by using the proper blend of job dimensions skill variety, task identity, task significance, autonomy, feedback.

The meaning of Job enrichment is depicted in the following image in figure (1).

I-2-2 The characteristics or features of job enrichment are:

- **Nature of Job**: Job enrichment is a vertical expansion of the job. The workers are given jobs, which require higher-level knowledge, skills and responsibilities. Job enrichment improves the quality of the job.
- **Objective**: The objective of Job enrichment is to make the job more lively and challenging. So, the job is a source of motivation for the workers.
- **Positive Results**: Job enrichment gives positive results if the workers are highly skilled. This is because workers are given opportunities to show initiative and innovation while doing their job.
- **Direction and Control**: Job enrichment encourages self-discipline. It does not believe in external direction and control.

I-2-3Benefits of job enrichment: (J E):

Is plays a vital role in any organization since it leads to many advantages including the ones mentioned by many researchers:

- **Learn new skills:** By having more responsibilities, the employee will have the chance to work on new tasks and therefore learn new skills. Decision making can lead to the employee to think, decide, and try new things. By having to learn new skills, the employee has the opportunity to become proficient at certain tasks and even become experts.
- **Reduce boredom:** Job enrichment focuses on giving employees more variety and responsibilities. The target of job enrichment is to reduce the chance of boredom from the repetitive, tedious activities.
- **Receive acknowledgment:** Job enrichment helps employee to have a chance to shine in the company with their responsibilities and duties. Accomplishments can be rewarded with incentives, awards, or even promotions.
- **Reduce employee turnover:** Job enrichment helps raise overall morale of employees in the work place. This directly translates to less employees trying to leave the company for work elsewhere as well as greatly decreases number of new employees that are needed to be brought in and trained.
- **Creates a better work environment:** The net result of job enrichment is an overall more positive environment that promotes maximum productivity. This is simply because employees who are treated better tend

to have better attitudes around the work place and tend to spread that positivism around the office. **((Web site Seminar report On Job Enrichment. www.studymafia.org viewed (21/07/2019))**.

I-2-4Ways of Enriching a Subordinate's Job:

There are at least five specific actions you can take to enrich a job:

- From natural work groups. Change the job in such a way that each group is responsible for, or "owns", an identification body of work. For example, instead of having a typist in a typing pool does work for all departments; make the work of one or two departments the continuing responsibility of each group of typists.
- Combine tasks. Let one person assemble a product from start to finish, instead of having it go through several separate operations that are performed by different people.
- Establish client relationships. Let the worker have contact as often as possible with the client, For example, let your secretary research and respond to customers' requests, instead of automatically referring all problems to you.
- Vertical loading. Let the worker plan and control his or her own job, instead of having it controlled by outsiders. For example, let the worker set his or her own schedule, do his or her own trouble-shooting, and decide when to start and stop work.
- Open feedback channels. Finally, find more and better ways for worker to get quick feedback on his or her performance.

There are some others examples of the strategies used to enrich a job which included:

- Rotating Jobs: Give people the opportunity to use a variety of skills, and perform different kinds of work. The most common way to do this is through job rotation. This can be very motivating, especially for people in jobs that are very repetitive or that focus on only one or two skills.
- Combining Tasks: Combine work activities to provide a more challenging and complex work assignment. For example, you can convert an assembly line process, in which each person does one task, into a process in which one person assembles a whole unit. You can apply this model wherever you have people or groups that typically perform only one part of an overall process. Consider expanding their roles to give them responsibility for the entire process, or for a bigger part of that process.
- Identifying Project-Focused Work Units: Break your typical functional lines and form
- Project focused units. For example, rather than having all of your marketing people in one department, with supervisors directing who works on which project, you could split the department into specialized project units – specific storyboard creators, copywriters, and designers could all work together for one client or one campaign. Allowing employees to

build client relationships is an excellent way to increase autonomy, task identity, and feedback.

- Creating Autonomous Work Teams: This is job enrichment at the group level. Set a goal for a team, and make team members free to determine work assignments, schedules, rest breaks, evaluation parameters, and the like. You may even give them influence over choosing their own team members. With this method, you'll significantly cut back on supervisory positions, and people will gain leadership and management skills.
- Implementing Participative Management: Allow team members to participate in decision making and get involved in strategic planning. This is an excellent way to communicate to members of your team that their input is important. It can work in any organization from a very small company, with an owner/boss who's used to dictating everything, to a large company with a huge hierarchy. When people realize that what they say is valued and makes a difference, they'll likely be motivated.
- Redistributing power and authority: Redistribute control and grant more authority to workers for making job-related decisions. As supervisors delegate more authority and responsibility, team members‟ autonomy, accountability, and task identity will increase.
- Increasing Employee-Directed Feedback: Make sure that people know how well, or poorly, they're performing their jobs. The more control you can give them for evaluating and monitoring their own performance, the more enriched their jobs will be. Rather than have your quality control department go around and point out mistakes, consider giving each team responsibility for their own quality control. Workers will receive immediate feedback, and they'll learn to solve problems, take initiative, and make decisions. **(Ziad Ali Bakri , 2015, p p17-p18)**.

II– Methods and Materials:

Data collected through research instrument in the form of questionnaire. The statements on the questionnaire were measured using a Likert scale of 1 to 5 scale. The sample of this study amounted to 28 people taking %20 sample where the total population is 140 employees.

II- 1Data Collection:

Questionnaires are used to measure the impact of digital technologies on job enrichment in KANAGAHZ. The question has two sections: the first one aimed to know existing and using of digital technologies in different levels. The second one aimed to show the degree of job enrichment and its various dimensions in KANAGHAS. These questionnaires are analysed through SPSS software 20Version.

II- 2Data analysis:

In order to analyze the data, the researcher uses a one sample **t test** to test if the opinion of the respondent in the content of the sentences are positive or negative when the mean less more than "3.40" and the p-value less than 0.05.

According to table (2), the Alpha Cronbach coefficient is greater than 0.7. So the parameters of tests will be used to perform the statistical data analysis.

The table (3) shows that 43 % of employees have a poison of Head department. 75% of them were Administrative Assistant like administrative employee, technician, accountant, and supervisor, this variety of positions able to handle all the tasks related to its processes.

III- Results and discussion:

We will discuss each part of questionnaire is its own.

III-1 Section one:

The table (4) shows that the mean of the first variable "Looking for new digital T" equal 4.75, which is more than 3.40, Test-value = 4.963. About "Allocating a part from budget to acquire the new digital T" the mean equal 3.85 which is more than 3.40, Test-value = 4.451. the mean of the third variable "Integration DT into business relationship" equal 3.93, which is more than 3.40, Test-value = 4.562. the mean of the fourth variable "Accepting changes in methods of work because of digital T" equal 4.14 which is more than 3.40, Test-value = 4.638 according the answers of employees in KANAGHAS. The mean of the fifth variable "Training the employees to use DT in deferent organizational levels" equal 4.32 which is more than 3.40, Test-value = 4.832. the employees of KANAGHAZ ensured the sixth variable" There is a positive improvement in products and services" because of the mean equal 4.04 is more then 3.40, Test-value = 3.231, and P-value = 0.000 which is smaller than the level of significance α=0.05 for all variables of digital technologies. The total mean equal 4.17 which is more than 3.40, Test-value = 4.613 so the sign of the test is positive. It is concluded that the respondents of KANAGHAZ agree to this section of questionnaire.

III-2 Section two

The table (5) shows that the mean The mean of the first variable "**Skill Variety**" equal 4.38 which is more than 3.40, Test-value = 4.136, and P-value = 0.008 which is smaller than the level of significance α=0.05. The sign of the test is positive, it is concluded that the respondents agree to this paragraph in KANAGHAZ.

The mean of the second variable "**Task Identity**" equal 3.76 which is more than 3.40, Test-value = 3.514, and P-value = 0.000 which is smaller than the level of significance α=0.05. The sign of the test is positive, It is concluded that the respondents agree to this paragraph in KANAGHAZ.

The mean of the third variable "**Autonomy**" equal 3.53 which is more than 3.40, Test-value = 3.473, and P-value = 0.000 which is smaller than the level of significance α=0.05. The sign of the test is positive, It is concluded that the respondents agree to this paragraph in KANAGHAZ.

The mean of the fourth variable "**Responsibility**" equal 3.45 which is more than 3.40, Test-value = 3.395, and P-value = 0.019 which is smaller than the

level of significance α=0.05. The sign of the test is positive, It is concluded that the respondents agree to this paragraph in KANAGHAZ.
The mean of the fifth variable "**Feedback**" equal 3.47 which is more than 3.40, Test-value = 3.423, and P-value = 0.000 which is smaller than the level of significance α=0.05. The sign of the test is positive, It is concluded that the respondents agree to this paragraph in KANAGHAZ.

The mean of the fifth paragraph "**have impact on other jobs in the same workplace"** equal 4.65 which is more than 3.40, Test-value = 4.336, and P-value = 0.000 which is smaller than the level of significance α=0.05. The sign of the test is positive, It is concluded that the respondents agree to this paragraph in KANAGHAZ.

The total mean of all **paragraphs of Job Enrichment** equal 3.87, Test-value = 4.613, P-value is smaller than the level of significance α=0.05. The sign of the test is positive, it is concluded that there is a high level of job enrichment in KANAGHAZ.

III-3 Hypothesis Testing:

From the table (6) we were extracted a linear regression function

Y= 0.262X+ 0.872 where:

Y represents digital technologies (Independent variable) .X represents Job enrichment (dependent Variable).

The results show that the correlation coefficient between digital technologies and Job enrichment job equals 0.879 and the p-value (Sig.) equals 0.000 is smaller than 0.05, so the correlation coefficient is statistically significant at α = 0.05. It is concluded there is significant positive relationship between digital technologies and Job enrichment according to the answer of administrative assistant and Head of Department of KANAGHAZ in boumerdes.

IV- Conclusion

The article has provided an overview of tow concepts: Digital technology and job enrichment. We are clarifying the effect and the sixth fields of digital technology in the organization. For the concept of job enrichment, we are presented the definitions, the evolution, benefices, dimensions and ways of enriching employee's job.

At the end of this article we concluded some results, the most important of which is a high interest in keeping up with the digital developments and a considered attempt by KANAGHAZ to modernize the traditional ways and means of work.

- According to the table number (4) the success of this application depends on the quality of production or service technology and the availability of personnel.
- These delineated changes are driven and enabled by a huge variety of new digital technology that became available in the last few years.

- Digital change serves us the opportunity to design our work, services, products in a way that exploits our true potential as humans and empowers to use our unique abilities and skills.
- Digital technology with its constantly developing characteristics functions as perfect platform for creativity, offering unexpected solutions and opportunities for organization's benefit.
- According to the table number (5) the job enrichment increasing knowledge creation characterizes the mission for any organization or community working for their existence and development of performance.
- There is job enrichment in different dimensions according to the answers of KANAGHAZ employee's.
- There is a direct relationship between job enrichment, employee empowerment, work motivation, and organizational commitment.
- According to the table number (6), Digital technology has opposing effects on job enrichment according to the answers of KANAGHAZ employee's It facilitates automation, creating fewer and less motivating skill jobs. DT has building a favourable climate for job enrichment.

Finley we proposed some Suggestions and recommendations:

- Business leaders will need to pay closer attention to the digital technology that is on the horizon, not just the applications that are being marketed.
- Job enrichment should be made based upon the technology of the workplace.
- Should encourage technology that complements employees' work, and should foster education and training that help workers adapt to change.
- Focus on people not only on technology.
- Evaluating their work processes to identify which tasks can be automated, and who is now doing those tasks.

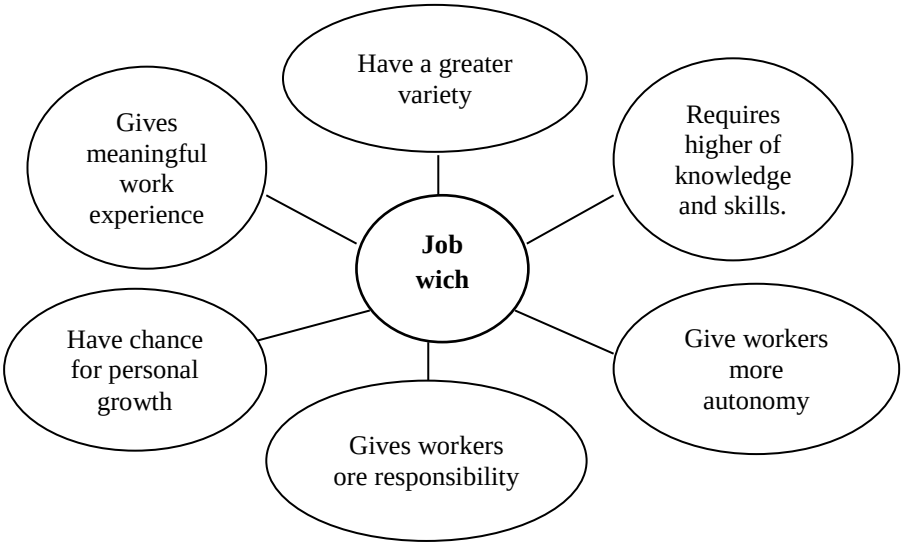
V- Appendices:

Table (1) Deference between traditional job and digital job.

Pors	Cons
Technology complements many tasks, increasing productivity, quality, and innovation. Big data and machine learning are increasing machines' ability to perform cognitive, physical, and even some social (language) tasks. Greater access to data, analysis tools, and telecommunications allows many workers to focus more on social interactions, collaboration, continuous improvement, and innovation. Technology makes many high-skill jobs more intrinsically motivating, enabling more tasks, skills, and decentralization	Machines substitute for humans in many manual and routine jobs. The pace at which machines gain the ability to perform cognitive tasks is faster than in the past, making adaptation by workers more difficult. Labor markets have polarized and inequality has risen, with relatively less demand for mid-skill workers and increased value for high-skill workers. Technology makes many middle-skill jobs less intrinsically motivating, with fewer tasks and skills, and more centralization and monitoring.

Source: Michael GIBBS, "How is new technology changing job design?" IZA World of Labor, (March 2017), p 1. wol.iza.org (20/07/2019).

Figure 1: Job Enrichment means



Source: Seminar report On Job Enrichment. www.studymafia.org viewed (21/07/2019).

Table (2) Reliability analysis

Statistiques de fiabilité

Alpha de Cronbach	Nombre d'éléments
.903	12

Source: Source: Researcher's Field Survey from SPSS output.

Table (3) Sample Distribution for «Position»

Psition	Frequency	Percentage
Head of Department	**12**	43%
Administrative Assistant	**16**	**57%**
Total	**28**	**100 %**

Source: Researcher's Field Survey from SPSS output.

Table (4) mean and Test value for "digital technologies"

N°	Paragraph	Mean	Standard deviation	T value	P-value	Rank
1	Looking for new digital T	**4.75**	**0.83**	**4.963**	0.000*	1
2	Allocating a part from budget to acquire the new digital T	**3.85**	**0.94**	**4.451**	0.000*	6
3	Integration DT into business relationship	**3.93**	**0.80**	**4.562**	0.000*	5
4	Accepting changes in methods of work because of digital T	**4.14**	**0.90**	**4.638**	0.000*	3
5	Training the employees to use DT in deferent organizational levels	**4.32**	**0.73**	**4.832**	0.000*	2
6	There is a positive improvement in products and services	**4.04**	**0.98**	**4.231**	0.000*	4
Digital technologies		**4.17**	**0.86**	**4.613**		

Source: Researcher's Field Survey from SPSS output.

Table (5) mean and Test value for "Job Enrichment"

N°	Paragraph	Mean	Standard deviation	T value	P-value	Rank
1	I Have a greater skill variety.	**4.38**	**1.03**	**4.136**	0.008*	2
2	I have a higher level of knowledge and skills.	**3.76**	**0.74**	**3.514**	0.000*	3
3	I am working with more autonomy	**3.53**	**0.98**	**3.473**	0.000*	4
4	I am working by more responsibility.	**3.45**	**1.29**	**3.395**	0.019*	6
5	I use feedback concerning the work performed.	**3.47**	**0.87**	**3.423**	0.000*	5
6	I have a meaningful impact on other jobs in the same workplace	**4.65**	**0.83**	**4.336**	0.000*	1
Job Enrichment		**3.87**	**0.96**	**4.613**		

Source: Researcher's Field Survey from SPSS output.

Table (6) Correlation coefficient between digital technologies and Job Enrichment

Coefficients

Modèle	Coefficients non standardisés		Coefficients standardisés	t	Sig.
	A	Erreur standard	Bêta		
(Constante)	.262	.460		.571	.879
Section 1	.971	.142	.775	7.835	.000

a. Variable dépendante : Section 2

Source: Researcher's Field Survey from SPSS output.

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