
THE ROLE OF INTELLECTUAL CAPITAL IN ACHIEVING ORGANIZATIONAL INNOVATION STUDY OF THE CASE OF “AIN TOUTA” CEMENT COMPANY, ALGERIA

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ABSTRACT: *The study aims to investigate the role of intellectual capital with its three dimensions: (human capital, structural capital and customer capital) in achieving organizational innovation, by studying the case of “Ain Touta” cement company at the province of Batna in Algeria. To reach this objective, we have designed a questionnaire composed of 30 expressions, and adopted 50 samples of the statistical community consisting in permanent workers at the company. In order to analyze the obtained data, we have used many statistical methods through which the study found a set of results, most notably, the existence of strong correlation and positive impact between intellectual capital with its (three) dimensions and organizational innovation in “Ain Touta” Cement Company, province of Batna, Algeria. The study concluded with a set of recommendations whose the most important are: increasing interest to intellectual capital because it is one of its most valuable assets, as well as the need to tend towards customers by knowing their propositions, listening to their grievances, working to resolve them in order to gain their satisfaction, and developing a relationship with them, in addition to adopting the principle of authority delegating to administrative levels, to let workers gain confidence in their abilities to make decisions and solve their problems.*

KEYWORDS: intellectual capital, organizational innovation, “Ain Touta” Company.

INTRODUCTION

Today's business world is witnessing rapid changes and great challenges, basically, because of the emergence of globalization phenomenon, strategic coalitions and alliances between giant organizations, the continuance of rapid creations and innovations, and the shifting of economy into so-called knowledge economy. The knowledge available at the organization becomes a competitive advantage that distinguishes it apart from others. As a result, many organizations perceived an important fact: the real value is not reflected only in their physical capital, but also in their intellectual capital consisting in workers' innovations and skills, in addition to the organization's mastery, patents, and its relations with customers, on the one hand; on the other hand, the rapid change and development in the contemporary environment requires constant innovation in all aspects of economic, social and technological life.

Thus, it became necessary to adopt innovation as a strategic input in the practices of organization's works and activities at all levels. Because of the urgent need for increasing performance and innovation, it should increase interest to its intangible assets consisting in intellectual capital.

Study's Problem:

Intellectual capital plays a very important role in organizations due to its intellectual competencies, skills and energies that positively affect their performance, so many of them have sought to develop it in order to achieve their objectives, especially, survival, growth and profitability through adopting it as a source of innovation which is no longer optional case in the midst of challenges faced by business organizations. It has become imperative to maximize their ability to interact and respond to the competitive environment requirements; thus, organizations of various kinds strive to find an important platform for using organizational innovation and supporting it with various strategies to achieve success and better performance. To address this problem, the following question can be asked: What is the role of intellectual capital in achieving organizational innovation in "Ain Touta" Cement Company, province of Batna, Algeria?

In this context, many questions are subdivided as follows:

1. What is the concept of intellectual capital and what are its dimensions?
2. What is organizational innovation and what are the most important strategies supporting it?
3. What level of interest does "Ain Touta" Cement Company appoint to intellectual capital?
4. To what extent is organizational innovation available in the organization under study?
5. What degree of influence of the three dimensions of intellectual capital (human capital, structural capital and customer capital) on organizational innovation in the organization?
6. What are the differences caused by demographic variables: (gender, age, educational level, seniority in office) for the study sample's members in organizational innovation in the organization?

Study's Hypotheses: To answer the problem and its sub-questions, the following hypotheses were formulated:

The first major hypothesis: there is a relation of statistical significance between intellectual capital and organizational innovation at significance level ($\alpha \leq 0.05$). It includes the following sub-hypotheses:

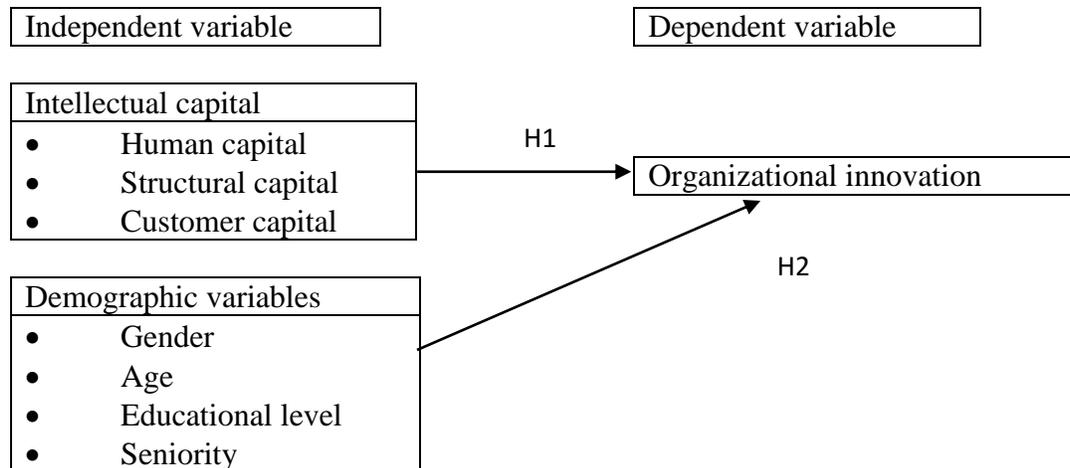
- There is a relation of statistical significance between human capital and organizational innovation at significance level ($\alpha \leq 0.05$).
- There is a relation of statistical significance between structural capital and organizational innovation at significance level ($\alpha \leq 0.05$).
- There is a relation of statistical significance between customer capital and organizational innovation at significance level ($\alpha \leq 0.05$).

Second major hypothesis: There are differences of statistical significance between the study sample's members according to demographic variables (gender, age, educational level, seniority) in organizational innovation at significance level ($\alpha \leq 0.05$). It includes the following sub-hypotheses:

- There are differences of statistical significance between the study sample's members according to gender variable in organizational innovation at significance level ($\alpha \leq 0.05$).
- There are differences of statistical significance between the study sample's members according to age variable in organizational innovation at significance level ($\alpha \leq 0.05$).

- There are differences of statistical significance between the study sample's members according to educational level variable in organizational innovation at significance level ($\alpha \leq 0.05$).
- There are differences of statistical significance between the study sample's members according to seniority variable in organizational innovation at significance level ($\alpha \leq 0.05$).

Study Modeling: Study modeling is done by highlighting the nature of its variables as follows:



Study's Importance:

The importance of this study lies in the importance of intellectual capital as a key source of organizations profitability and a fundamental supporter of their competitiveness; the interest to it is imposed by the nature of scientific and economic challenges, rapid technological changes and intense competitive pressures. As intellectual and innovative capacities have become one of the most important excellence factors in the knowledge-based world, all innovations begin with creative idea. Arab library still lacks specialized studies in setting clear standards for measuring and evaluating intellectual capital in organizations, as there is an apparent lack of applied researches on intellectual capital with its variables and various components in the activation of innovation and updating in business organizations.

Nowadays, The subject of intellectual capital is of increasing importance as one of the activities and processes that help to discover and strengthen the flow of individuals' cognitive and organizational capacities; these capacities enable them to produce new products to the organization, expand its market share, on the one hand, and maximize its strengths, on the other hand, and make it earn a competitive advantage that distinguishes it apart from others.

Study's objectives: The study's objectives appear in the following points:

- Identifying the interest level of "Ain Touta" Cement Company to intellectual capital with its three dimensions (human capital, structural capital and customer capital).
- Identifying the availability level of organizational innovation in the organization.
- Highlighting the role of intellectual capital in achieving organizational innovation through studying the case of this organization.

- Provide senior management in the organization under study with scientific perception within which it can develop administrative methods it adopts to develop employees' experiences, skills and potentials, and enhance organizational innovation in order to achieve its objectives.

Study's Theoretical Framework: Intellectual capital and its importance

Many researchers have contributed to develop a comprehensive concept of intellectual capital because it is one of the relatively modern subjects that is still shrouded in a lot of mystery. Therefore, it is difficult to find its comprehensive and integrated concept. We will explain some of what was written by researchers in this regard.

Many researchers and writers have been dealt with the concept of intellectual capital including (Reid, 1998, 1-6) who defines intellectual capital as "intellectual matter consisting of knowledge, information, skills and experience of economic value that can be put into practice in order to create wealth". Perhaps the most important concepts and views in this area are what (Stewart, 1997, 1-3) says: "Employees' skills and knowledge are intellectual capital if they are distinct so that no one has these skills in competing organizations, as well as they are a strategy, i.e., they have value for which customer pays a price to obtain them by buying distinct products". (Sveiby, 1997, 1) points out that it is "a comprehensive and important strategy for organizations consisting in employees' knowledge and skills, and organizations' culture and the value- organization's non-physical assets". According to the opinion of (Brooking, 1996) it is "the raw intelligence owned by a group of people working in the organization, which contributes to reduce and cancel unacceptable results and ensure the success of organizations".

(Edvinsson, 1997) gives it the meaning of its content "intangible resources (assets) that can be used by organizations to create value by converting them to new processes, goods and services, so intellectual capital is employees' knowledge and mental strength, as well as knowledge resources stored in the organization's database, its processes, culture and philosophy".

(Bassi, 1997) indicates that the more widely used definitions to define intellectual capital is "Knowledge that constitutes the organization's value, which is made up of human capital, structural capital and customer capital".

Based on previous concepts, we can say that intellectual capital includes the following characteristics:

- Mental ability of high level of knowledge owned by a specific group of employees.
- Intangible intellectual assets that have significant impact in increasing and maximizing the organization's other physical assets.
- There is difficulty in dispensing or replacing them.
- The difference between the organizations' carrying value and market value.
- It does arise in a vacuum, but it needs intra-organizational building includes attracting intellectual capital, then making, developing, and maintaining it.
- It is one of the most important competitive advantages that can be owned by business organizations.

Intellectual Capital Components and Agreement Aspects on them

Most researchers agree that intellectual capital consists of three sub-components: human capital, structural capital and relational (customer) capital; among these researchers: (Edvinsson & Malone, 1997), (Lothgren, 1999), (Bontis, 2001).

Human Capital: It is all the knowledge in the minds of the organization's employees, whether they are innovators or ordinary individuals as each one of them has a part of the tacit knowledge commensurate with his potentials (Stewart, 1999, 50). (Bontis, 1996, 40-47) points out that human capital is a set of the organization's capacities to extract the best solutions from the workforce knowledge; this element occupies great importance for being a source of innovation and strategic updating, it can be developed through brainstorming in research laboratories, reengineering processes and improving skills.

(Edvinsson, 1997, 8) indicates that human capital is a set of knowledge, skills, innovation and the employees' ability to accomplish the organization's tasks; it includes the organization's values, culture and philosophy.

(Grantham, 2002, 5) believes that human capital consists of knowledge, skills and practical experience possessed the organization's employees; human capital is the driver for innovation in the organizations working in the knowledge-based economy, especially, in their interaction with customers; it is, at the end, the company's ability to solve business problems.

(Lothgren, 1999, 15) sees that human capital is composed of the following types:

- **Creativity:** It means the ability to provide new solutions instead of using continuously traditional methods; this part of human capital is necessary and essential to the employees' innovation and organization's ability to adapt to new situations.
- **Professional competence:** It is the educational level and experience owned by employees, as well as the knowledge used to effectively doing business.
- **Social competence:** It is the ability of interaction and connection with others; it is necessary for the cooperation of individuals in the organization to achieve the desired performance.

Structural Capital

Structural capital is the second major component of intellectual capital; the organization's value is based on its ability to collect, transfer and use its structural capital to achieve its holistic objectives; structural capital does not consist only in equipment and hardware, but it is also the ability of the organization to use these tools to increase profitability (Brinker, 2000, 7).

(Bontis, 1996, 40-47) defines structural capital as the ability of the organization to meet market requirements; it includes structures and methods for implementing routine works that support employees to achieve optimal intellectual performance.

(Sveiby, 1998, 18-22) thinks that structural capital consists of a wide range of patents, concepts (ideas) and models, as well as computers and management systems; these components exist and are created by the organization's workforces, and they are, therefore, possessed of by the organization and are a part of it.

(Luthy, 1998, 4) gives a holistic concept of structural capital as anything in the organization supports employees in the performance of their work; it consists in the infrastructure supporting employees and it is owned by the organization and it remains with it even when employees leave it; it includes traditional things such as buildings, hardware, software, processes, patents and

trademarks, as well as its own information system. (Grantham, 2002, 27) sees structural capital as a set of strategies, structures, systems and procedures under which the organization can produce and deliver products to customers, as well as it is the ability of the organization to respond to the changes occurring in the environment.

-Components of structural capital

Structural capital generally consists of administrative methods and procedures used to complete internal activities; (Brooking, 1997, 7) classifies structural capital to the following components:

- **Management philosophy:** It is what organization's leaders think about their organization, particularly, with regard to the message of the organization and its employees.
- **Corporate culture:** It means how the organization performs its business, especially, patterns and values; the overall culture of the organization should reflect the management philosophy and must be compatible and consistent with the organization's holistic objectives.
- **Management process:** It is a mechanism by which the organization can implement its philosophy; it includes how managers handle the problems of employees, quality control processes, and knowledge management policies and procedures.
- **Information technology systems:** By which management processes are implemented; these systems, through their ability to improve efficiency and take care of customer and employees satisfaction, include databases and other tools to make knowledge practically used within the organization.
- **Networking systems:** They are the ability to link computers with others by providing the ability to reach customers.
- **Financial relations:** Separate relationships with banks and investors work to provide the organization with the required flexibility to quickly raise currency liquidity and respond to market requirements.

Another point of view sees that structural capital consists of several components (Luthy, 1998, 4):

- **Organizational capital:** It ensures the organization's philosophy and the systems used to raise its productivity.
- **Innovation capital:** It includes intellectual property and intangible assets; intangible assets mean all the talents, capabilities and theories that manage the organization, while intellectual property is the protection of ongoing rights such as trademarks and copyrights.
- **Process capital:** It includes techniques, procedures and programs that implement and support goods and services delivery.

Customer (Relational) Capital:

It is the third form of intellectual capital components; the core of relational capital is the knowledge held by customers. Therefore, it has become imperative for the organization to gain the knowledge possessed by its customers to complete its intellectual capital. Customer capital has internal and external two-fold since the organization's value is realized, by this view, according to its relations with its customers, both internal (human resources of the organization) or external (beneficiaries of goods and services). Customer satisfaction and loyalty are a positive indicator of the organization's ability to cooperate and satisfy their desires and needs; the organization that maintains its customers achieves competitive advantages consisting in

reinforcing intellectual capacities leading to create added value, since the preservation of internal customer capital requires efforts by the human resources management to prepare stimulus and development programs and maintain these resources (Abbas, 2004, 130).

(Hakan, 2001, 20) points out that customer capital is a full reflection of the human and structural capital power in finding the required knowledge in relationships with customers to complete intellectual capital.

Organizational Innovation:

There are various concepts and different views on innovation and its essence. There is no agreement on its definition due to the complexity of the innovation phenomenon itself, and the multiple areas in which it spreads, resulting in a difference in the theoretical baselines of this subject. Moreover, researchers face another problem consisting in the multiplicity of synonymous terms such as: discovery, creativity and change to a degree that it is difficult to choose the appropriate definition.

(Robbins, 1998, 426) considers innovation as "the processes that lead to create an idea and put it out through a product, a useful service or new methods". (Amabile, 1998, 77) defines it as "diagnosing problems and finding appropriate solutions to overcome them in a new way, through arranging available ideas in a new form". According to Schermerhon et al. (Schermerhon, 1997, 409), innovation is "the process of creating new ideas and put them into practice, confirming that the best companies reach creative ideas then put them in practice". This is another development that makes innovation an integrated process from idea to product (practice) then to the market (advantage). To affirm his view, Schermerhon put this equation:

Innovation = Competitive Advantage

Shani and Lau (Sahni and Lau, 1994, 14-15) give another development of the definition; after distinguishing creativity (reaching the idea) and innovation (application of new idea), they confirm that the new idea may be new technology, new product or new organizational or administrative process. Moreover, innovation may be an imitation of a product, person, or idea used in another place and it becomes unique application when it is put in a new context. It should be noted that this expands innovation in application; it does not limit it in technology or product, but it enlarges it to administrative and organizational innovation, and, most importantly, it expands it to imitation to create something new from it in a new context.

(Myers and Marquis) give one of the most comprehensive definitions of the concept of innovation: "innovation is not an independent individual event, a new concept, a new idea or an invention of something new, but it is a comprehensive and integrated process that includes an associated set of subsystems and sub-processes within the organization". Therefore, innovation process is related to all activities, processes and events within the organization, and it interacts and occurs in an integrated manner (Cited by: Paul Trott, 2000, 15).

(Daft, 2001, 357) points out that innovation is the "adoption of an idea or a new behavior for the company's manufacture, market or general environment; the first company to introduce a new product is innovative". In the same context, (Najm Aboud Najm, 2003, 21) sees that innovation is

"the company's ability to arrive at providing a new product that add more and faster value and which is better than the competitors' products on the market".

We can refer to other definitions to increasing clarifications, such as the definition given by the father of the industrial economy (Joseph schumpeter, 1935, 35) (Austrian-born American economist); he believes that "innovation is the production of a new product, the adoption of a new way of working, the introduction of a new production restructuring, opening a new market or obtaining a new production resource". Within this concept, Peter Drucker (Drucker, 1988, 18) sees that innovation is economic and social term rather than technical term; it is "a change in the resources result, in the economy language, it is a change in value and satisfaction resulting from the resources used by the consumer".

The contemplative look at innovation essence according to the previous definitions, helps to determine the comprehensive concept that focuses on the following points:

- Organizational behavior;
- Adoption and use of new applicable ideas and methods;
- Contribution to achieving the organization's various objectives;
- Granting outstanding competence to the organization to face competitors.

For reference, many ideas hid behind the term of innovation; the first one that it is a voluntary act aiming to improvement according to what is available, where each operator, whatever his level, has innovation authority; the second one that it is a bet on the future; it can lead to success or failure without knowing in advance the opportunity that is new with concrete results in the company and it leads to unusual dynamics (Gérard Dokou, 2006, 6).

Because of the importance shared among many specialists such as economists, psychologists and others, towards the topic of innovation, and by relying on the distinction input between terms, we must also distinguish between innovation and the following terms:

- **Discovery:** Discovery means an act that leads to know a natural phenomenon that has been unknown until that moment, i.e., detecting something new that has pre-existed but it is unknown, such as the discovery of bacteria by Pasteur (André - Jean Rigny, 1973, 30).

- **Invention:** Invention and innovation are often used as synonyms as they mean reaching a new idea, then a new product usually associated to technology. (Mealia and Latham, 1996, 452) point clearly out that innovation and invention can be mutually used.

In other cases, as with (Robbins and Coulter, 2001, 354) who have distinguished between them, invention refers to reaching a new idea that is completely linked to technology and affects community organizations, while innovation means renewal as it is reconfiguration or re-work of new ideas to generate something new.

- **Change:** It is a behavior or new ideas adopted by the organization, which are different from those already used. It is characterized by comprehensiveness and continuity in line with innovation, but it differs from the latter in terms of (sharpness, risks, cost) which rise in innovation, so each one complements the other, because innovation is an essential process by which change occurs, and change may generate innovations in the company's structures and functions (Ziyadat, 2008, 359).

Therefore, we can say that all innovations indicate change, but not all changes are innovations, because changes can do not require new ideas or lead to significant improvements. Forces affecting innovation and change are varied; some of them arise from external factors and others from internal factors, i.e., from within the organization, as there may be better times to make change and innovation.

- **Creativity:** Some writers use the terms innovation and creativity as synonyms to refer to one meaning, but there is a difference between the two concepts; innovation is defined as ideas characterized as new, useful and connected to solve specific problems, assembly or reconstruct cognitive styles of knowledge in unique forms (Assarn, 2000, 26). It is an aptitude to create and produce new ideas (S everine Le Loarne, 2006, 112).

In the same context, the Austrian economist Schumpeter is considered the first one to distinguish between innovation and creativity in his first study published in 1934, where he pointed out that creativity is to reach a creative solution to a problem or a new idea, while innovation is the appropriate application (Nicolas Roulet, 2006, 8). Therefore, creativity cares about offering creative ideas that represent a new vision of things or working ways, while innovation represents an additional step to apply creative ideas (created things) so as to create and increase production and add noticeable value to the organization either by achieving more profits, reducing costs or decreasing risks (Ajlan Hasan, 2008, 42). Even if each term has its own significance, there are those who believe they are attached and it is wrong to separate them.

As a summary, we can say that innovation is a comprehensive process begins with the emergence of creative idea and ends after applying it as something new and marketing, using or expanding its consumption circle.

Innovation Types:

Innovation types continuously increase, from production technologies to new products, to regulation methods and the various elements that affect the functioning of the organization. Thus, Schumpeter has identified five forms of innovation (Peters, 2002, 5):

- Production of a new product;
- Integration of a new method of production;
- Achievement of a new regulation (such as monopoly);
- Use of a new source of raw materials;
- Opening a new input (new market).

The Nature of innovation:

The innovation types identification leads, on this basis, to distinguish between four basic types: innovation in the product (it concerns the determinants or components of the product itself), innovation in the production art methods (it concerns the production methods and device), marketing innovation (it concerns the development of new ways of products marketing), and regulatory innovation (it concerns the integration and change of management procedures and methods). Each one of these types responds to specific characteristics and objectives (Marchesnay and Fourcade, 1997, 284):

Innovation in the product:

It means the introduction of a new or improved product (good or service) to the market compared to its basic characteristics, technical features or all non-physical components, in addition to the expected use or ease of consumption (Boyer and Didier, 1998, 14). Thus, preference can be made between three types of innovation in product; innovations related to the functional composition of the product, innovations change the technological composition and innovations change the characteristics of the product offering, with the possibility of interference among these innovations, i.e., functional composition innovations of the product can require technological composition change innovations.

Therefore, all the efforts made by the organization aiming to create changes in the products' specifications, components or characteristics, are classified as activities aiming to make innovation in the product in order to satisfy and meet better needs of consumers, and to achieve a competitive excellence over competitors.

Innovation in the production art methods: It is the introduction of a new or improved production method in the organization, the provision of services or the delivery of products, which leads to improve product quality or reduce the cost of production and distribution (European Commission, Oslo Manual, 1997, 28). Thus, innovation in the production method includes changes in raw materials, the technical style of production in terms of technical and economic aspects or in production equipment. These transformations can occur in the reorganization of activities or the production process stages; their objective is to facilitate and collect lower costs in order to maintain or strengthen the organization's competitiveness often by increasing the amount of outputs (final products).

Marketing innovation: It means to put new ideas into actual application in the marketing practices; it could focus on the product, whether a good or service, price, promotion, distribution or on all of these elements at the same time, in other words, marketing innovation is oriented to the marketing mix elements combined together (Atallah Sarhan, 2005, 11). Marketing innovation aims to increase the organization's sales, and introduce the trademark to gain customer confidence and achieve his loyalty, as he is the reason for the existence of the organization (Broustail and Fréry, 1993, 8).

Regulatory innovation: It concerns the integration and change of management procedures and methods. This type is a non-physical innovation that aims to transform and reorganize management ways and methods, and the knowledge gained in order to make the organization's and individuals' behavior more positive and effective (Oukil, 1999, 5).

Regulatory innovation is interested in developing modern management systems and making transformations in the distribution of activities between individuals and in the combination of functions within the organization; this may require non-physical investments in training by employing qualified individuals in communication in order to strengthen the principle competencies in the organization, as well as innovations in management where managers often find difficulties to apply their method of work. According to specialists in quality, 85% of the problems that occur in organizations result from mismanagement. Thus, the improvements taking

place in this function could produce a very important added value for organizations (HEC, 2005, 100).

Degree of innovation: Innovation is the introduction of change that may be small or big; in the case of small change, we deal with micro, slight or young innovation that makes simple and slight on products or production methods. But, in the case of radical change, we deal with powerful or radical innovation that radically or fundamentally changes products or production methods, and make conversion in markets or radically change the conditions of competition between institutions. Thus, the degree of innovation leads us to distinguish between:

Micro or slight innovation: Micro-innovation introduces "changes or progressive improvements to the elements or references constituting the product and its cost; this type does not require new in-depth scientific knowledge" (Broustail and Fréry, 12). The improvement made by micro-innovation on products and production methods is important and of great benefit to organizations, especially as it depends on simple and quite expensive requirements and efforts; the person in charge of it can be, for example, an employee or engineer or a group of them. It begins with a simple idea to turn, after study or experience, to a source of profitability after exploiting and embodying it on products or production methods. This type of innovation is characterized by continuity because improvement is progressive and continuous. The accumulation of micro-innovations could make radical change in the product or production methods - a new product or a new method of production- especially that organizations are competing to make small changes to their products or production methods to achieve competitive excellence.

Powerful or radical innovation: Powerful technological innovation makes radical or fundamentally change to the elements or routine references constituting the products and their costs. It requires new, focused and in-depth scientific capabilities and knowledge. Therefore, powerful technological innovation touches the essence of products and equipment, and the core of industrial methods. It is a different and new conception on things existing in market or known by people (Oukil, 1992, 113). Among its most important characteristics that it happens in relatively spaced intervals, which distinguishes it from the micro technological innovation that is characterized by continuity (Bellon, 1994, 8). Radical innovation is large and expensive efforts and means, and modern in-depth focused scientific information and knowledge. The organization that successes to achieve this type of innovation gains a strong power in the market up to a temporary monopoly, thus, it becomes a leader in its industry and achieves a strong competitive advantage for its exclusivity in the product offer.

From the above, we note that there are many types of innovation on several levels; this is substantially in line with its definition which focuses on the element of comprehensiveness. The essence of innovation concept comes in the form of the application of knowledge within the organization in order to develop goods and services and put them successfully on the market.

Thus, innovation is not just limited to the occurrence of technological innovations, but there are many types; it may include a great technological development for the first time, a simple technological development, development of new goods or services or the development of production processes and activities within the organization. In general, any new development,

improvement or evolution occurs in any part, function or activity, process or any organizational level within the organization is an innovation.

On this basis, we will adopt, in the topic of this study, the organizational innovation that focuses on the organization's behavior in its dependence on new and improved acts, methods and processes when performing its business.

The importance of innovation:

Innovation is increasingly important in today's world, it has become an important core of the organization's strategies, and a vital topic for governments and states. One indication of this shift is the large increase in research and development resources. Many organizations in the key sectors in OECD countries allocate resources for research and development (R & D) more than those allocated for equipment and permanent factories. Also, one of the main factors leading Japan to offer greater diversification and faster development of its products is that its companies spend more than (30%) of their outputs on research and development activities compared to its American counterpart (Pavitt, 1990, 17-26). The period between the innovation and the first application has been reduced from 90 years in the eighteenth century to 20 years in the first half of the twentieth century with the acceleration and increase of new products introduction. In the United States of America, 13 thousand new products were introduced in 1986, and 15 thousand in 1991 (Glem, 1994, 11).

The need for innovation in contemporary organizations have become evident because it is an important tool for the growth of the organization and its ability to adapt to changing environmental conditions. In addition, it has become an integral part of the culture of any organization that seeks to success. Innovation literature indicates that non-innovative organizations will be doomed to failure, decay and death because they do not adapt themselves to the surrounding environment conditions.

Innovation creates in organizations the favorable climate which enables the organization to develop serious products to satisfy the needs and desires of customers in the market, on the one hand, and to achieve the growth objectives sought by the organization, on the other hand. So, innovation must be taken from a strategic perspective for its ability to develop the organization's capacities in order to achieve strategic objectives.

The benefits of innovation for the organization can be summed up as follows:

- Improving customer service through flexibility and adaptability to meet their needs;
- Increasing the organization's competitive capacities through its speed in offering new products and changing new processes;
- Improving the organization's productivity, achieving efficiency and effectiveness in performance and using resources economically and in a distinct quality;
- Creating new opportunities for the organization to increase its sales and profits;
- Improving the organization's image and place and make it attractive for customers and leader of markets;

- Building and developing organizations, as well as facing the future problems and challenges and responding to the competition with other organizations both inside and outside the community in which they exist;
 - Innovation breeds innovation; innovation is soon followed by other innovations issuing from the same innovative idea and aiming to achieve the same needs.
- Accordingly, we note that all industrial, commercial and service organizations need innovation; the best organizations are those that have the ability to innovate, and the best managers and labor leaders are those who can provide appropriate organizational climate to help the organization's members in use completely their innovative talents so as to promote the organization's competitiveness in order to respond to the knowledge era.

Presentation of “Ain Touta” Cement Company

“Ain Touta” Cement Company is one of the most important public economic production companies at the province of Batna – Algeria; it is affiliated to the Industrial Cement Complex (GICA). It is a joint-stock company seeks, through its activities, to meet the various needs of the construction sector in terms of cement.

This company was created by concluding a contract, on 15 May 1983, between the Danish F.L.S held and the Company of Cement and derivatives of the East with “Ain Touta” Cement Unit in collaboration, depending on the competence, with Belgian companies in civil engineering affairs, and the company competent in mechanical installation activities. The first experience of production at the company was in 3 September 1986 with a production capacity of 1.000,000 tons a year, or 84.000 tons per month.

Objectives of “Ain Touta” Cement Company: The overall objectives (strategic) consist in increasing its turnover through improving its performance in line with the requirements of the quality management system (ISO). The secondary objectives include the following axes:

- **Financial axis objectives:** through which it seeks to improve profitability and reduce costs.
- **Customer axis objectives:** it consists in the customer satisfaction, improving fulfillment and simplifying the contact with him.
- **Internal processes axis:** it aims to ensure the production processes management, reduce operational problems and control stock values.
- **Organizational learning axis objectives:** it includes the development of information systems, ensuring the training of its members and improving its incentives system.

Certificates obtained by “Ain Touta” Cement Company:

“Ain Touta” Cement Company obtained many certificates which are indicated in the following table number (01):

Systems	Certificate	Year
Environment Functioning System	ISO 14001	2004
Health and Safety at Work Functioning System	OHSAS 18001	2007
Quality Functioning System ISO	ISO 9001	2008
Health and Safety at Work Functioning System	OHSAS 18001	2013

METHODOLOGY AND PROCEDURAL STEPS OF THE FIELD STUDY

This section describes the field study that has been done to achieve the study’s objectives; it includes the identification of the study’s population, sample, tool and the methods used in the statistical treatment.

Study’s Method: Based on the nature of the topic, the descriptive method has been adopted in the theoretical part of this study through research in references related to both sides of the topic (intellectual capital and organizational innovation). So, there were many references and sources of books, periodicals, international seminars and academic dissertations. In the case study, the analytical method has been used by using the questionnaire as a tool to collect elementary data and analyze them using SPSS statistical software. In addition to the former two methods, the inductive method.

Study’s Population and sample:

The study’s population is a group of individuals on whom attention is focused in the study or in a particular research. The theoretical population of this study consists of the employees at “Ain Touta” Cement Company of Batna. Since the study cannot include all members of the targeted population, the sample has been randomly selected by distributing 56 questionnaires, retrieving 52, and canceling two for failure to complete answers in them, i.e., we have 50 definitive questionnaires under study.

Study’s Tool and its Building

Questionnaire has been adopted as a study’s to collect the required data, since it is the most appropriate to achieve the objectives. On this basis, it has been designed as follows:

Part I: It contains the personal data of the study’s sample in terms of gender, age, educational level and seniority.

Part II: It includes the study’s axes, and it is, in turn, divided into two axes as follows:

1-Axis I: It respects intellectual capital and contains 22 phrases divided on three key dimensions as follows:

- **The first dimension:** It represents human capital and contains 7 phrases.
- **The second dimension:** It represents structural capital and contains 7 phrases as well.
- **The third dimension:** It represents customer capital and contains, in turn, 8 phrases.

2-Axis II: It is about organizational innovation; it contains 8 phrases.

The questionnaire includes (30 questions) on the topic. Answers can be formulated using the Likert scale five phrases (Strongly agree, Agree, Undecided, Disagree, Strongly disagree) respectively.

Statistical Processing Methods and Sincerity of the Study's Tool

To analyze the data collected using the questionnaire, it has been relied on the Statistical Package for Social Sciences SPSS (Version. 20), through a set of statistical processing methods as follows:

- Cronbach's alpha test to determine the stability of the questionnaire's phrases.
- Kolmogorov Smirnov test to know if they follow normal distribution or not.
- Description of the study's sample personal data using frequencies and percentages.
- Determination of the Likert scale cells' length by calculating the range ($5-1 = 4$), then it is divided by the number of the scale cells to obtain the correct length of the cell ($4/5 = 0.8$). Then, this value is added to the lower value of the scale that is the right one to determine the upper limit of this cell. Thus, the cell's lengths become as described in the following table:

Table (02): Length and Evaluation of the cell

Cell's length	Evaluation
From 1 to 1.80	Very weak
From 1.81 to 2.60	Weak
From 2.61 to 3.40	Average
From 3.41 to 4.20	Good
From 4.21 to 5	Very good

- Calculation of the arithmetic average to know the extent of the sample individuals' response to the phrases, as well as their classification by the highest arithmetic average.
- Calculation of the standard deviation to measure the degree of dispersion of the samples answers values to the arithmetic average of each phrase; the closer the value of the standard deviation to zero, the more concentrated and the less dispersed are the answers.
- Calculation of Pearson correlation coefficient to measure the degree of correlation between the study's variables.
- Analysis of linear regression to determine the role played by the independent variable and demographic variables in the dependent variable.

Sincerity and Consistency of the Study's Tool and the Normal Distribution Test**Sincerity of the Study's Tool**

Sincerity is one of the things required in the study's tool to demonstrate the ability of each phrase to measure its specific aim. The sincerity of the study's tool was verified based on the virtual sincerity through presenting the questionnaire to a group of specialist teachers. So, I took the definitive form and distributed it to the study's sample.

Consistency of the Study's Tool

To ensure the consistency of research's tool, the internal consistency coefficient test (Cronbach's alpha coefficient) has been made; the coefficient value ranging between 0 and 1. If its value is less than 0.6, it indicates the internal consistency is low. The following table describes the results of the test:

Table (03): Consistency coefficient values of the study's axes

Axis	Number of phrases	Cronbach's alpha value
Intellectual capital	22	0.865
Organizational innovation	8	0.793
Total	30	0.905

Source: According to the SPSS software outputs

From the above table, we note that the value of Cronbach's alpha coefficient of intellectual capital is 0.865, while organizational innovation is 0.793; the total is 0.905, i.e., it is greater than 0.60, which indicate the constancy of the questionnaire.

Normal Distribution Test**Table (04): Normal distribution test**

Axis	Z of Kolmogorov Smirnov	Sig.
Intellectual capital	0.596	0.869
Human capital	0.684	0.737
Structural capital	0.797	0.549
Customer capital	0.467	0.981
Organizational innovation	0.686	0.735

Source: According to the SPSS software outputs

It is clear from the table above that the potential value Sig of all the study's phrases was greater than the significance level 0.05. Thus, the distribution of data for these phrases is normal.

Study's Data Analysis:**Personal Data analysis:**

It appears from the table number (05) below that the male category composed of 31 individuals (62% of the study's sample) constitutes the largest category in the study's sample, while the female category composed of 19 individuals (38% of the study's sample) constitutes the lowest category due to the nature of the company's work that needs males more than females. We note also that the largest age category ranges from 31-40 years old (50%) followed by the age category less than 30 years old (15%), which is a positive result for the company because the nature of the company's work requires greater youthful energy to accomplish works. The

categories from 41 to 50 years old and more than 50 years old represent 12% and 8%, respectively.

As regards with the educational level, the holders of the bachelor's degree represent the largest percentage (50%) or 25 individuals of the study's sample, followed by the higher studies level with (26%) or 13 individuals of the study's sample. These results positively indicate that the company seeks to development through the exploitation of the employees' knowledge. With regard to seniority in the company, the highest percentage, through the table below, is 42% of the individuals whose experience ranges between 6 and 11 years, followed by the category less than 5 years (34%) due to the nature of the attraction of employees through employment agencies, followed by the percentage 24% or 12 individuals of the study's sample, which constitutes the employees whose experience is more than 12 years. This percentage is lower than the others due to the increasing number of retired employees in recent years, especially since 2013.

Table (05): Demographic variables of the study's sample individuals

Variable		Ferquency	Frequency %
Gender	Male	31	62
	Female	19	38
Age	Less than 30 years old	15	30
	From 30 to 40 years old	25	50
	From 41 to 50 years old	6	12
	More than 50 years old	4	8
Educational level	Less than secondary	2	4
	Secondary	10	20
	Bachelor's degree (Licence)	25	50
	Higher studies	13	26
Seniority in the company	Less than five years	17	34
	From 6 to 11 years	21	42
	More than 12 years	12	24

Source: According to the SPSS software outputs

Discuss of the Study's Questions:

The first question: What level of interest does "Ain Touta" Cement Company appoint to intellectual capital?

To answer this question, we have to adopt the descriptive analysis of intellectual capital dimensions phrases using arithmetic average and standard deviation as shown in the following table:

Descriptive Analysis of Human capital Phrases**Table (06): Arithmetic average and standard deviation of human capital phrases**

N°	Phrase	Arithmetic Average	Standard deviation	Assessment	Classification
1	Employees' qualifications fit with the positions they occupy	3.28	1.246	Average	6
2	Employees have sufficient knowledge in their respective fields	3.54	0.952	Good	2
3	Employees have qualifications that can be exploited in various fields	3.54	0.952	Good	3
4	Employees have skills and capabilities not available in competing companies	3.32	1.039	Average	5
5	The company gives its employees the opportunity to complete studies and seeks to move them to develop new employees' skills.	3.24	1.188	Average	7
6	The company keeps the experience of veteran employees and seeks to move them to develop new employees' skills	3.40	1.212	Average	4
7	The company encourages its employees to work together to share knowledge, skills and experience.	3.70	1.093	Good	1
General arithmetic average and general standard deviation		3.4314	1.0897	Good	/

Source: According to the SPSS software outputs

It is clear from table (06) that there is a difference among the study's sample individuals on human capital as indicated by the arithmetic average values whose average is (3.4314), with variation and dispersion of views according to the value of the standard deviation whose average is (1.0897).

As indicated in the table, human capital phrases achieved arithmetic averages approaching or exceeding a little the value of the general arithmetic average, where the highest arithmetic average was for the phrase number (7) with a value of (3.70), which confirms that the company encourages its employees to work together to share knowledge, skills and experience, while the phrase number (5) obtained the lowest arithmetic average (3.24). Even so, the general arithmetic average of phrases reached the value (3.4314), which refers, according to the assessment, to the good interest by the company to human capital.

Descriptive Analysis of Structural Capital Phrases**Table (07): Arithmetic average and standard deviation of structural capital phrases**

N°	Phrase	Arithmetic Average	Standard deviation	Assessment	Classification
1	The company continuously evolves its organizational structure in accordance with the surrounding environment	3.60	1.010	Good	1
2	Organizational structure provides a high degree of clarity in the nature of the relationship superior-subordinate	3.46	0.994	Good	3
3	The company tends to decentralization in management and promotes the principle of authority delegation for the lower administrative levels	3.08	1.140	Average	6
4	There is a continuous development of administrative processes, so that outstanding performance in works achievement is realized	3.46	0.952	Good	4
5	The company relies on information systems to manage its human resources and its daily works.	3.60	0.926	Good	2
6	Used information systems provides decision-makers with necessary information efficiently and quickly	3.28	1.070	Average	5
7	The company supports new ideas and keeps them to obtain certificates and patents.	2.80	1.262	Weak	7
General arithmetic average and general standard deviation		3.3257	1.05057	Average	/

Source: According to the SPSS software outputs

As shown in table (07), there is a difference among the study's sample individuals on structural capital as indicated by the arithmetic average values whose average is (3.3257), with variation and dispersion of views according to the value of the standard deviation whose average is (1.05057).

Structural capital phrases achieved arithmetic averages approaching or exceeding a little the value of the general arithmetic average, where the highest arithmetic average was for the phrase number (1) and number (5) with a value of (3.60), which confirms that the company takes care of its organizational structure and uses information systems to facilitate its daily works, while the phrase number (7) obtained the lowest arithmetic average (2.80), which indicates that the company does not keep the ideas proposed by its employees. Even so, the general arithmetic average of phrases reached the value (3.3257), which refers, according to the assessment, to the average interest by the company to its structural capital.

Descriptive Analysis of Customer Capital Phrases**Table (08): Arithmetic average and standard deviation of customer capital phrases**

N	Phrase	Arithmetic Average	Standard deviation	Assessment	Classification
1	The company carries out ongoing exploratory studies to identify the needs and desires of customers	3.48	1.092	Good	3
2	The company takes care of customers' complaints and seeks to urgently solve them	3.44	0.993	Good	5
3	The company works on studying customers' proposals and applying the most appropriate.	3.28	0.991	Average	8
4	The company grants to its permanent customers specific privileges distinguishing them from repeat ordinary customers	3.44	0.951	Good	6
5	The company awards many distribution channels allowing it to approach customers.	3.46	0.885	Good	4
6	The company seeks to develop products and provide services satisfying its customers	3.52	0.931	Good	2
7	The company is keen to deliver products to customers on time	3.30	1.129	Average	7
8	The company offers high-quality products and services allowing it to maintain its customers	3.54	1.129	Good	1
General arithmetic average and general standard deviation		3.4325	1.01262	Good	/

Source: According to the SPSS software outputs

As shown in table (08), there is a difference among the study's sample individuals on customer capital as indicated by the arithmetic average values whose average is (3.4325), with variation and dispersion of views according to the value of the standard deviation whose average is (1.01262).

As indicated in the same table, customer capital phrases achieved arithmetic averages approaching or exceeding a little the value of the general arithmetic average, where the highest arithmetic average was for the phrase number (8) with a value of (3.54), followed by the phrase number (5) with a little difference, which confirms that the company works on satisfying its customers through offering high-quality products and services, while the phrase number (3) and the phrase number (7) obtained the lowest arithmetic average (3.30) and (3.28) respectively. These values indicates that most customers' complaints are related to the delivery of goods in time, but the company does not attach too much attention to them. However, through the general arithmetic average value (3.4325), the assessment refers to good interest by the company to its customer capital.

From the above, we can answer the first question through the following table:

Table (09): Arithmetic average and standard deviation of intellectual capital dimensions

Dimensions	Arithmetic Average	Standard deviation	Assessment	Classification
Human capital	3.4314	1.0897	Good	2
structural capital	3.3257	1.05057	Average	3
Customer capital	3.4325	1.01262	Good	1
Intellectual capital	3.3965	1.05096	Average	/

Source: According to SPSS software outputs

Through Table (09), it is shown that the general arithmetic average value of intellectual capital is (3.3965), with variation and dispersion of views; the value of the standard deviation is (1.05096). As it seems, the interest in intellectual capital is average, and customer capital ranked first, followed by human capital with narrow difference, while structural capital remains in the third place in terms of the company's concerns.

To what extent is organizational innovation available in “Ain Touta” Cement Company?

To answer this question, we have to adopt the descriptive analysis of organizational innovation phrases using arithmetic average and standard deviation as shown in the following table:

Table (10): Arithmetic average and standard deviation of organizational innovation phrases

	Phrase	Arithmetic Average	Standard deviation	Assessment	Classification
1	The company adopts new ideas to change its administrative practices according to environmental changes.	3.86	0.978	Good	1
2	The company works to make its organizational structure more flexible to increase communication between the different levels and exchange of information and knowledge	3.40	0.969	Average	6
3	The company intends to introduce qualified employees in order to diversify its culture and facilitate communication with customers	3.44	1.053	Good	5
4	The company keeps its employees on teamwork	3.26	1.175	Average	7
5	Employees have the ability to generate new ideas and to provide quick solutions to the problems of daily works.	3.50	0.974	Good	4
6	The company involves its employees in training courses in order to gain more knowledge and exchange experiences with others	3.58	1.012	Good	3
7	The company introduces modern technology to reduce work deadlines	3.70	0.886	Good	2
8	The company provides work environment encourages innovation	3.20	1.1143	Average	8
	General arithmetic average and general standard deviation	3.4925	1.02016	Good	/

Source: According to the SPSS software outputs

As shown in table (10), there is a difference among the study's sample individuals on organizational innovation as indicated by the arithmetic average values whose average is (3.4925), with variation and dispersion of views according to the value of the standard deviation whose average is (1.02016). As indicated in the same table, the highest arithmetic average was for the phrase number (1), which indicates that the company takes care of its employees' ideas especially as regards the administrative practices, followed by the phrase number (7) whose arithmetic average value is (3.70), which confirms the company's interest to technological side due to changes imposed by globalization, then the phrase number (6) that indicates the value of the individual at the company and the need for training him to keep up with changes. While the lower value was for the phrase number (4) and the phrase number (8), which means that the company must be concerned with innovation ideas and get out of routine to improve performance, as well as provide the necessary atmosphere for employees and use many methods that allow them to generate new ideas.

Generally, through the results obtained, we note that organizational innovation is well available in "Ain Touta" Cement Company according to assessment, particularly, that relating to the use of technology and, the improvement of administrative practices and carrying out training courses for employees.

Study's Hypotheses Test:

The first major hypothesis: there is a relation of statistical significance between intellectual capital and organizational innovation at significance level ($\alpha \leq 0.05$). To test this hypothesis we use simple regression analysis as shown in the following table:

Table (11): Results of simple regression analysis test of the effect of intellectual capital on organizational innovation

Model	Correlation coefficient	Determination coefficient Square (R^2)	Calculated F	Potential value Sig.	Constante A	Constante B
Organizational innovation	0.761	0.579	65.894	0.000	0.355	0.917
Intellectual capital						

Source: According to the SPSS software outputs

Table (11) shows that the value of correlation coefficient is (0.761), which means that the increase in intellectual capital by one unit leads to increase in the achievement of organizational innovation by 76.1% of one standard deviation unit, which explains that their relationship is positive and strong. As it seems, the value of determination coefficient is 0.579, meaning that 57.9% of the change in organizational innovation is due to the change in intellectual capital. The remaining value is attributed to other factors outside of the model. Since the F calculated value is 65.894 at the potential value (Sig.) (0.000) is less than the adopted significance level, there is a relation of statistical significance between intellectual capital and organizational innovation at significance level ($\alpha \leq 0.05$).

Sub-hypotheses of the first major one:

To test sub-hypotheses and find the relation between the dependent variable and the dimensions of the independent variable, the following statistical sub-hypotheses are tested:

- Null hypothesis H_0 : There is no relation of statistical significance between the independent variable and the dependent variable at significance level ($\alpha \leq 0.05$).
- Alternative hypothesis H_1 : There is a relation of statistical significance between the independent variable and the dependent variable at significance level ($\alpha \leq 0.05$).

The first sub-hypothesis:

- H_0 : There is no relation of statistical significance between human capital and organizational innovation at significance level ($\alpha \leq 0.05$).
- H_1 : There is a relation of statistical significance between human capital and organizational innovation at significance level ($\alpha \leq 0.05$).

To test this hypothesis, we put the following table:

Table (12): Results of simple regression analysis test of the effect of human capital on organizational innovation

Model	Correlation coefficient	Determination coefficient Square (R^2)	Calculated T	Potential value Sig.	Constante A	Constante B
Organizational innovation	0.617	0.381	5.438	0.000	1.486	0.578
Human capital						

Source: According to the SPSS software outputs

As shown in table (12), the value of correlation coefficient is (0.617), which means that the increase in human capital by one unit leads to increase in the achievement of organizational innovation by 61.7% of one standard deviation unit, which explains that their relationship is positive and strong.

As it seems, the value of (R^2) is 0.381, meaning that 38.1% of the change in organizational innovation is due to the change in human capital. The remaining value is attributed to other factors outside of the model. Since the T calculated value is 5.438 at the potential value (Sig.) (0.000) is less than the adopted significance level, we accept the alternative hypothesis and reject the null one.

The second sub-hypothesis:

- H_0 : There is no relation of statistical significance between structural capital and organizational innovation at significance level ($\alpha \leq 0.05$).
- H_1 : There is a relation of statistical significance between structural capital and organizational innovation at significance level ($\alpha \leq 0.05$).

To test this hypothesis, we put the following table:

Table (13): Results of simple regression analysis test of the effect of structural capital on organizational innovation

Model	Correlation coefficient	Determination coefficient Square (R^2)	Calculated T	Potential value Sig.	Constante A	Constante B
Organizational innovation	0.637	0.406	4.076	0.000	1.460	0.604
structural capital						

Source: According to the SPSS software outputs

As shown in table (13), the value of correlation coefficient is (0.637), which means that the increase in structural capital by one unit leads to increase in the achievement of organizational innovation by 63.7% of one standard deviation unit, which explains that their relationship is positive and strong.

As it seems, the value of (R^2) is 0.406, meaning that 40.6% of the change in organizational innovation is due to the change in structural capital. The remaining value is attributed to other factors outside of the model. Since the T calculated value is 4.076 at the potential value (Sig.) (0.000) is less than the adopted significance level, we accept the alternative hypothesis and reject the null one.

The third sub-hypothesis:

- H_0 : There is no relation of statistical significance between customer capital and organizational innovation at significance level ($\alpha \leq 0.05$).
- H_1 : There is a relation of statistical significance between customer capital and organizational innovation at significance level ($\alpha \leq 0.05$).

To test this hypothesis, we put the following table:

Table (14): Results of simple regression analysis test of the effect of customer capital on organizational innovation

Model	Correlation coefficient	Determination coefficient Square (R^2)	Calculated T	Potential value Sig.	Constante A	Constante B
Organizational innovation	0.607	0.371	2.770	0.000	1.199	0.662
Human capital						

Source: According to the SPSS software outputs

As shown in table (14), the value of correlation coefficient is (0.607), which means that the increase in customer capital by one unit leads to increase in the achievement of organizational innovation by 60.7% of one standard deviation unit, which explains that their relationship is positive and strong.

As it seems, the value of (R^2) is 0.371, meaning that 37.1% of the change in organizational innovation is due to the change in customer capital. The remaining value is attributed to other factors outside of the model. Since the T calculated value is 2.770 at the potential value (Sig.) (0.000) is less than the adopted significance level, we accept the alternative hypothesis and reject the null one.

The second major hypothesis: there are no differences of statistical significance between the views of employees depending on demographic variables (gender, age, educational level, seniority) in organizational innovation at significance level ($\alpha \leq 0.05$).

Table (15): Differences in the views of employees depending on demographic variables

Variable	Calculated F	Significance level
Gender	0.113	0.739
Age	3.208	0.032
Educational level	1.353	0.296
Seniority	1.115	0.891

Source: According to the SPSS software outputs

Through table (15), we accept the null hypothesis for each of the variables: gender, education level and seniority. While we reject the null hypothesis and accept the alternative hypothesis for the age variable.

CONCLUSION

Interest in intellectual capital has significantly increased in recent years with the growing recognition of its importance that leads to improve performance and increase the organization's ability to compete. However, our knowledge about the impact of its various components on innovation is still limited. This study attempts to show the relationship between these components and organizational innovation at "Ain Touta" Cement Company, province of Batna, Algeria.

Study's Results

The study found a set of results that can be inserted in the following points:

- 1- Male category is more than female one at the company because the nature of the company's work requires it.
- 2- The company takes well care of its human capital through attracting individuals with sufficient knowledge, competencies and skills, especially in their respective fields, and by encouraging them to work together to exchange and share them with others.
- 3- The level of the company's interest in structural capital is average. Nonetheless, it seeks to develop its organizational structure in accordance with environment requirements, and the nature of relations between its employees, as well as the same regard for the development of its administrative practices and the use of information systems to manage human resource.

4- The level of the company's interest in its customer capital is good, as the company seeks to satisfy its customers through the development of its services and products better. However, most of the problems suffered by the company's customers are relating to delivery times.

5- Customer capital ranks first in terms of the company's interests, followed by human capital then structural capital in the third classification, which confirms the achievement of its objectives related to customers.

6- The level of availability of organizational innovation in the company is good; it works on adopting innovation ideas to change its administrative practices and solve daily work problems, as it involves its employees in training courses in order to gain more knowledge and exchange experiences with others, and introduces modern technology to reduce the conduct of operations.

7- The greatest impact in organizational innovation is due to structural capital, meaning that organization innovation is affected by organizational structure, company's culture, and organizational learning effectiveness that the company seeks to achieve its objectives, as well as the good interest to the change in administrative practices in order to respond to the environment requirements and changes, which indicates also that organizational innovation is done at the company as a whole.

8- The impact of human capital on organizational innovation is lower than structural capital, but their percentages are near, indicating the importance of the individuals' knowledge, skills and competencies in the development of the company's performance.

9- The impact of customer capital on organizational innovation ranks third, explaining the lack of the company's interest to new ideas and proposals of its customers in the way of service offering and dates of products delivery. These ideas clearly express the presence or absence of innovation towards customer service.

10- There are differences of statistical significance between the views of employees depending only on the age variable among demographic variables studied in the organizational innovation. This result can be explained by that innovation of all kinds is a dynamic process that needs renewal, staying away from imitation and breaking the routine increasing often in parallel with employees' age, seniority itself and the same activity.

STUDY'S RECOMMENDATIONS

Based on the results thereof, we can provide a set of recommendations as follows:

1- Increasing interest to intellectual capital because it is one of the most valuable assets at the company.

2- Preserving older employees' experiences and seeking to move them to develop new employees' skills.

3- Adopting the principle of authority delegation for lower levels to give employees confidence in their abilities in decision-making and solving their problems without resorting to the supreme authority and wasting time.

4- Necessity for development and diversification in incentive system to encourage employees to innovate and provide new ideas and proposals, allowing them a high degree of autonomy at work and encouraging initiative, which may increase the company's productivity.

5- Tending towards customers by knowing their proposals, listening to their complaints, working to solve them and finding alternatives in order to gain satisfaction and develop the relationship with them.

- 6- Working to solve the problem of wait and waste time for customers that endures for very long periods and ensuring the delivery of products on time.
- 7- Developing customer communication systems to gain time and to accurately identify processes and appointments.

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