

The paradigm of quantum leadership : ontology, praxis and application to management

Le paradigme du leadership quantique : ontologie, praxis et application à la gestion

Sanae HANINE
Doctor of Management
Marketing Research Laboratory
Higher Institute of Commerce and Business Administration
Hanine.sanae@gmail.com

Mircea Aurel Nita
Associate professor
National School of Political and Administrative Studies Bucharest Romania
Faculty of Public Administration
mircea.nita@administratie publica.eu

Date de soumission : 22/02/2019

Date d'acceptation : 27/04/2019

Pour citer cet article :

HANINE S. & Nita M-A (2019) « The paradigm of quantum leadership : ontology, praxis and application to management » Revue Internationale des Sciences de Gestion « Numéro 3 : Avril 2019 / Volume 2 : numéro 2 »
p : 837 - 858

Summary

From Khun's perspective (1962), science advances by revolution and not by accumulation. To this end, we present the paradigm of quantum leadership as a revolutionary model versus the newtonian paradigm that has reigned in the managerial sphere since the 17th century. Inspired in its ontology by the latest discoveries in quantum physics, the eponymous leadership revolutionizes the taylorian way of managing organizations. Consciousness, values, sharing, release of potential, innovation, etc. are the concepts that appear in the interpretation grid of this paradigm. Quantum leadership is a conceptual and practical framework for managing organizations. Indeed, quantum organization is learning, self-organized, acts on the edge of chaos and swims in uncertainty. The article asks the question about the ontological substrates and praxis of the quantum leadership paradigm and how it affects the performance of organizations.

Keywords : quantum leadership ; quantum skills ; quantum organizations ; quantum management ; quantum physics

Résumé

Dans la perspective de Khun (1962), la science avance par révolution et non par cumulation. A cet effet, nous présentons le paradigme du leadership quantique comme modèle révolutionnaire versus le paradigme newtonien qui a régné dans la sphère managériale depuis le 17ème siècle. S'inspirant dans son ontologie des dernières découvertes de la physique quantique, le leadership éponyme bouleverse la donne taylorienne dans le management des organisations. Conscience, valeurs, partage, libération du potentiel, innovation etc sont les concepts qui transparaissent dans la grille de lecture de ce paradigme. Le leadership quantique un cadre conceptuel et pratique pour le management des organisations. En effet, l'organisation quantique est apprenante, auto-organisée, agit à la limite du chaos et nage dans l'incertitude. L'article se pose la question sur les substrats ontologiques et la praxis du paradigme du leadership quantique et comment il affecte la performance des organisations.

Mots clés : leadership quantique ; compétences quantiques ; organisations quantiques ; management quantique ; Physique quantique

Introduction

Uberization, transhumanism, artificial intelligence, digitalization, collaborative work, virtual currency, big data, neuroscience, these are some of the typologies of phenomena that shape our era. We are entering the quantum society whose most salient qualifiers are uncertainty and complexity. The frantic pace of exchanges, the entanglement of people, companies, societies and technologies are the key words of this new dynamic (Friedman, 2005). In this context, it is legitimate to ask the question about the management of people and organisations and the leadership style to adopt to support them.

Most organizations are more than ever confronted with a crisis in human resources management (Belet, 2013 ; Sahraoui & Temnati 2019). To be successful, managers must deal with the speed of change, unpredictability and complexity of their environment. Despite the huge budgets earmarked for leadership development programmes, in the United States, for example, more than \$46 billion a year is spent on this purpose, indicators show a decline in confidence in leaders and the business community in general. Hubrism and unethical behaviour are reported. Indeed, since the financial crash of 2008, the business world has been splashed with scandals that reinforce the thesis of mistrust : Wells Fargo, Enron, WorldCom Tyco and recently the Volkswagen fraud etc. A survey conducted by the Ethics Resource Center found that 41% of American workers reported unethical behaviour on the part of their managers. In addition, ethical issues, stress and burnout are among the major problems that companies will have to deal with in the next fifty years (Hougaard, and al., 2019). On another level, agility in the face of change has become a criterion for the leader's effectiveness. Quoting Pladevall Javier, CEO of Audi Volkswagen in Spain, "*today's leadership is about unlearning management and relearning the human fundamentally*". Thinking about an alternative model to the type of leadership has become a serious issue. Several models have emerged from the authoritarian paternalistic leadership that developed into transformational, then transactional, charismatic, authentic, learning, servant and finally quantum leadership.

According to the literature, quantum leadership is a multidimensional concept, including cognitive, relational, ethical, emotional and spiritual dimensions. Quantum organizations are successful when stakeholders know how to access and unleash the infinite potential of the quantum field. Considering organizations from a quantum theory perspective suggests management approaches and techniques for effective service delivery. The praxis of this paradigm is based on a symbiotic relationship between the company and quantum mechanics.

It links the ideas of quantum mechanics, chaos theory and complexity theory to the organizational problems and challenges faced by leaders. It is about using new science to reformulate the company's thinking. It is at the heart of the system of defining meaning. It confers the ability to act with wisdom and compassion while maintaining inner awareness and outer peace in all circumstances.

The main objective of this research is to define the principles of the quantum leadership paradigm, its skills, characteristics and impact on performance. First, we will try to answer the following question : What are the milestones of quantum leadership paradigm that differentiate it ontologically from the newtonian one ? And it to what extent can quantum leadership be a panacea for structural organizational issues, such as demotivation, rigidity, counter-performance ? How can quantum leadership help organizations had better prepare for the rapid changes and complexity of their environment? In a second step, we will try to understand the influence of the practice of quantum leadership on the organization's performance.

1. Some principles of quantum mechanics

Linguistically, quantum means "a quantity of something", and mechanics means "study of motion". From a quantum perspective, nature is complex, constantly evolving, turbulent, chaotic, unknown and uncertain (Zohar, 1997). For (Stacey, et al., 2000), it is dynamic and events are unpredictable and their control is a kind of illusion. According to the precepts of quantum physics, the interaction effects of all the changes that occur constantly, inevitably lead to changes in other parts of the field and convert the quantum void into a vast lake of potential turbulent forces and an entangled model of dynamic energy beyond control and prediction (Zohar, 1997). In view of "contextualism", quantum phenomena do not have a fixed identity. They are uncertain and undefined. This characteristic gives the quantum system maximum flexibility to define itself in terms of environmental conditions and allows it to manage the creation of its own dynamics (Zohar, 1997). When all of nature's complex systems delicately create a balance between stability and flexibility, they act very creatively on the balance with the boundary of chaos (Zohar, 1997 ; Youngblood, 2000).

In the process of change and evolution, chaos is an inevitable and essential element, and a catalyst that creates the necessary imbalance for the development of the system. Chaos is the basis for progress : without chaos of change, entropy will occur. According to (Braden, 2017), because of the nature of the hologram a change at any level is reflected in the whole. In this system, our world could be seen as a shadow or a projection of events occurring in a deeper underlying reality (Shelton, 1999).

From a quantum perspective, human beings are quantum beings, even if, at first sight, everyone seems to be corporeal. They have a material and immaterial dimension whose function is supposed to be under the influence of quantum principles (Deir, 1998). Thinking and behaviour, whatever their context, are indeterminable and their context in the past and present is infinite and goes beyond the complete description. For (Gamson, 2006), the quantum paradigm sounds the death knell for objectivity in scientific studies.

By probing the inside of the atom and searching for its structure, science has transcended the limits of our sensory imagination and demonstrated its limits (see Chater 2018's theory of stupidity). It is no longer appropriate to rely on absolute certainty, logic and common sense. In fact, from a quantum perspective, the world, as an autonomous organizing system, evolves

and develops to higher levels of complexity and coherence (order), and chaos and disorder grow and eventually lead to order (Shelton & Darling, 2001).

1.1 Quantum Paradigm Methodology

Unlike the newtonian paradigm considered deterministic and mechanistic, the quantum paradigm is holistic and focuses on social relationships (Zohar, 1997). From this perspective, nothing is static (Stacey, et al., 2000), nature is constantly changing and there is uncertainty (Zohar, 1997). Nature is assumed to be complex, chaotic and unpredictable, so that it cannot be controlled by direct human intervention (Fris & Lazaridou, 2006).

1.2 Quantum paradigm and management

The Newtonian paradigm in management has been known to be effective and reliable. Focused on well-defined objectives and linked to rules and control. It implied strict compliance with procedures and orders. Nevertheless, this model has demonstrated its limitations in terms of human capital development and the ability to face complex and fast changes. Interpersonal relationships have been oriented towards serving productivity. In addition to certain shortcomings such as the flexibility to deal with unforeseen situations, the newtonian paradigm suffers from an endemic lack in the learning process (Değirmenci & Utku, 2000). Hierarchy, rules and the sacralization of control influence all segments of management. In addition, profit, efficiency and certainty were the main elements of this paradigm. The importance of predictable and controllable qualities was enormous in an organization. The problems were solved by focusing separately on each segment of the organization (Mutlu and Sakınç, 2006). (Erçetin & Kamacı 2008 ; Kilmann 2011) believe that these old methods and approaches are no longer necessary. The quantum versus newtonian paradigm has been introduced in management to guide and describe organizational phenomena and solve management problems (Lynch & Cocks, 2003 ; Alvani & Danaifar, 2005).

The quantum paradigm finds its full meaning in responding to the urgent need to transform the structural and leadership characteristics of organizations. Such a need also means changing the reasons behind our thinking (Zohar, 2011). In the quantum paradigm, knowledge and innovation are obtained through various interpretations of reality. Referring to "contextualism" which implies the ambiguity of the nature of the relationships between the relational boundaries between quantum phenomena, they must always be observed in a

broader context defined by the relationship between these phenomena. Thus, to understand reality, the quantum approach focuses on qualitative research methods (Gummesson, 2006). The main feature of this type of research is that the world is composed of multiple realities and involves a mental relationship between researchers and participants (Sarantakos, 1998). Indeed, in the quantum paradigm, events and facts may not be explained by a simple cause-and-effect model ; beyond that, the focus is on processes such as intuition, invention, observation, imagination, creativity, etc.

Therefore, the challenge for managers is to act on the borderline of chaos. They must acknowledge that change cannot be controlled, it can only be understood and perhaps guided (Fullan, 2001). The quantum paradigm believes that cooperation and collaboration can unleash creativity, innovation and full potential. Thus, the organization, employees, customers, society, the market and ecology are elements that can interact and define each other to co-create the reality and future of the organization.

The quantum paradigm presents a new perspective of the organizational world ; a perspective that is both objective and subjective, rational and irrational, linear and non-linear, and regular and irregular (Shelton, 1999). In this perspective, phenomena, including individuals and organizations, are considered as specific recognizable models of energy placed in the quantum void (Zohar, 1997).

2. Quantum organizations

Quantum organizations have certain characteristics that distinguish them from Newtonians considered pyramidal, reductionist, vertical, mechanical, and hierarchical. Quantum organizations are multilateral and multidirectional (Malloch & Porter-O'grady, 2007) as mentioned in Table 1.

For (Deardorff & Williams, 2006) a quantum organization allows the emergence of solutions, ideas and knowledge through the alignment of the ideas, skills, experiences and individual values of all staff in an organization. They function as complex adaptive systems consisting of many parts that interact with each other. Ordered, they evolve over time. They are mainly self-organized (Kilmann, 2011), learning from many trial and error experiences and adaptive since they are able to operate in perpetual imbalance and face unpredictability and chaos (Zohar, 1997).

Quantum organizations have the ability to maximize the benefits of being a network, that is, they have the speed and flexibility. Communications are multidirectional, staff are multi-

skilled and trust is at a high level. The orientation and clarification of common objectives are highlighted. In these organizations, attempts are made to facilitate by decentralizing and using self-managed structures and using vertical, horizontal and diagonal connections within the organization. Members of quantum organizations not only share a number of fundamental values such as integrity, cooperation and empathy, but also adopt transcendental objectives independently of wealth creation (Collins & Porras, 1994).

The organizational climate is open and supportive, with particular attention to the promotion and development of human capital, so that members of the organization have more self-confidence than ever before and want to participate more in the success of the organization (Baber, et al., 1999) as mentioned in Figure 1.

According to (Kiel, 1994), non-linear relationships between relevant variables in chaotic and complicated systems can lead to extremely disproportionate effects elsewhere in the system. Managers can include these effects in their systems as a support point. Consequently, (Kiel, 1994) suggests that the best results in an organization can be achieved not through enormous efforts, but through small, well-targeted actions (Goldoff, 2000). From a quantum perspective, customers matter. Each interaction with a customer in an organization is described as a quantum state of the organization (Boxer, 2014).

Table 1 : Newtonian versus quantum organization (Hanine, 2019)

The Newtonian organization	The quantum organization
Mechanic and determinist	Organizational phenomena are fundamentally uncertain and unpredictable. Certainty is an illusion and even harmful.
The party organizes the whole	Holistic and systemic. Each part interferes with the whole
Le profit est l'objectif ultime	Création de sens est le but ultime
Power comes from above and makes the rules sacred	Instead of giving orders, orientation and initiative are privileged
Control is essential at every level	Privilege to give alternatives of action
Inflexible	learning organization
Organizational change begins at the head of the organization and has a reaction mode	Change can start anywhere in the organization
Difficulties in responding to change	The change is sui generis to the activity. So the response is fast and the answer flows on creativity and innovation
Efficiency and effectiveness are considered the ultimate value	The sense of relationships and the well-being of employees are privileged
The survival of the fittest (Darwinism)	Innovative postures and a mode of action that goes off the beaten track.
There is only one leader	Leadership is shared among all employees
Formal authority	Influence that transcends formal authority and is based on trust and respect
Cognitive intelligence	Cognitive intelligence (IQ), spiritual intelligence (SQ) and emotional intelligence

	(EQ)
Favours judgments	Favours guidance and orientation
One best way	There are several ways to do things
Emphasis is placed on the division of labour, task specialization and competition	Collective intelligence
Human capital is a passive resource	Human capital is a creative and active partner (member) of the organization.
The focus is on analysis	Intuition
The emphasis is on individual action	The emphasis is on team action
Neutrality in terms of value	Ethics and service are priorities

Figure 1. Quantum leap values in organizations (Mapes, 2003)

Respect: Respecting the dignity of an individual paves the way for the creation of positive values and it is considered as the antidote against adverse situations and characteristics to emerge between individuals

Accountability: This value introduces personal freedom and eliminates pretences. The accountability value provides the individuals in an organization with the opportunity of moving (leaping) from being a victim to becoming a player

Integrity: This value is the coherence leap between what an individual says and what he/she does thanks to the matching of their actions first with their words, then with their values

Perseverance: This is the power that will form in an organization as a result of continuity and determination. It is asking, What have you succeeded today? (succeeding something every day)

Discipline: It is a personal choice made beyond following of procedures

Source : Mapes JJ (2003) Quantum Leap Thinking: An owner's guide to the mind. Naperville, Illinois:Sourcebooks, Inc.)

3. Quantum leadership

Quantum leadership theory was introduced in the 1990s by several researchers, including (Blank, 1995) and then (Zohar, 1997) British-American researcher in physics, philosophy, complexity and management with her seminal book "The Quantum Self: Human Nature and Consciousness Defined by the New Physics". She proposed a new reflexive and practical model in the field of management based on complexity theory and quantum physics. Quantum leaders have particular abilities and characteristics to lead the complex organizations of today (Karakas and Kavas, 2008). (Giles, 2018) defines quantum leadership as "a set of skills that transforms leaders and organizations to stimulate innovation based on solid research in neuroscience and complex adaptive systems. It starts with effective self-management, ensuring the safety of others, facilitating differentiation leading to a deep connection between team members and then facilitating learning and growth. The quantum paradigm is an integrated system that responds to deep human needs and unleashes the full potential of individuals so that they can produce radical innovations. According to (Giles, 2018), the characteristics of quantum leadership are:

- Self-management
- The safety of others so that they can use the upper part of their brains to connect and learn
- Differentiation to facilitate creativity and innovation
- The creation of links and belonging to the organization
- Effective learning through many trials and errors
- Radical innovation

In total break with the taylorian posture that dominated the 20 centuries, quantum leaders have deep transformational thought systems. Since reality is the projection of a world composed of unlimited information, quantum leaders believe in an opening towards an infinite world of possibilities. And as a result, they open their creative doors and actively work for their employees. They are able to unleash creativity, transform chaos into intelligence and then into wisdom. Their goals are focused on ethics and values. They are adaptable and are not afraid to go off the beaten track. By using quantum competence, leaders can focus on the positive aspects of all events, rather than focusing on problems and failures (Cooperrider, et al., 2000). From a quantum perspective, the leader is only one of the

hundreds or thousands of individuals who contribute to the success of the company. Any company is only the result of an interconnected field of action, intentions and events in addition to market trends and large-scale international influences. No individual can create all this alone, even the greatest leader.

Quantum leadership, in addition to its off-loading of the mechanistic whole, has reservations about the "all logic". This implies a new mindset that approaches management issues from a new perspective. According to (Zohar, 1997), since the atomic and subatomic level have participated in the creation of a new model of human consciousness, unusual variables are to be considered as chance, probabilities, intuition, relationship to space and time, consciousness etc. Quantum leaders have the ability to manage in chaos and potential uncertainty. They use paradoxical differences to create innovative ideas. Believing firmly in wisdom, they introduced the conscious mind to all stages of managerial postures. They know how to outline the paths to initiate a positive and successful dynamic within the company.

Managers who accept these new approaches will be able to create new tools for positive movement in their organizations (McDaniel, 1997). When they use quantum knowledge, they want to create a new type of learning organization that develops conscious decision-making through intuition. They are motivated to be responsible for choosing acts of kindness, compassion and integrity (Zohar, 1997). They are fluid, dynamic and flexible and act as coaches (Malloch & Porter-O'grady, 2007). Some characteristics of quantum leaders are mentioned in Table 2.

Table 2 : Some characteristics of quantum leaders (Hanine, 2019)

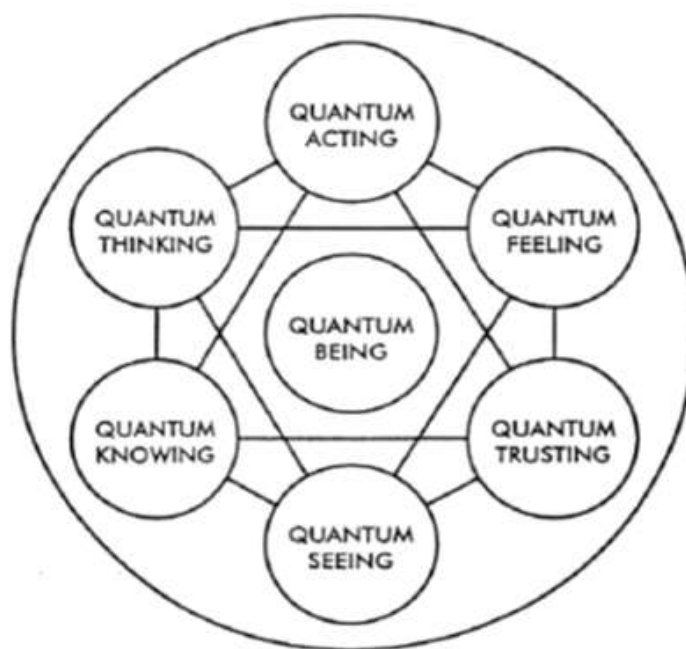
Quality	Quality description
Resilience	Resilient in the face of lack and failure
Pacification	Pacify their relationships with themselves, others, space and time
Trust and confidence	Emptiness as an opportunity to refuel again
Creativity	They are always on the lookout for new solutions
Inclusiveness	They allow employees to have a positive attitude
Vision	They ensure that the organization has a cross-cutting objective, an action plan and a sense of direction
Consciousness	They are conscious people and allow the components of the organization to interact in new ways
Altruistic	They have integrated the importance of employee satisfaction is both intrinsic and extrinsic
Superior intelligence	They multiply the intelligences IC, EQ and SQ

3.1 Quantum skills

According to (Shelton, 1999), leaders need seven skills to examine their mental models and promote their ability to learn Figure 1 :

- ***Quantum Seeing*** : which consists of an unusual vision of reality as 80% of our external world is linked to our own convictions and representations. So, the quantum leader can change his perceptions according to his objectives. These internal assumptions and beliefs lead managers to pay attention to specific aspects of the situation and to ignore many other stimuli (Darling, et al., 2001). This competency stipulates that managers must refine their intentions through special techniques in order to better understand their environment and free themselves from cognitive biases. In this way, they can consciously choose their intentions and objectives.
- ***Quantum Thinking*** : quantum thinking is the brain's ability to act at a higher level than creativity and innovation. As part of this competency, managers should gather apparently conflicting ideas and diversificate knowledge.
- ***Quantum Feeling*** : it refers to the ability to actively feel : compassion and recognition and to have a vital and positive emotional posture even in adversity.
- ***Quantum Knowing*** : The ability to know intuitively.
- ***Quantum Acting*** : The ability to act responsibly. It indicates that the whole is part of a complex whole in the world in which each party influences and is influenced by the other parties.
- ***Quantum Trusting*** : The ability to trust the process of life. This shows that chaos is an evolutionary process and a prerequisite for any progress. From a quantum perspective, managers support people in conflict and encourage them to use the inner resources of wisdom to discover innovative win-win solutions.
- ***Quantum Being*** : Refers to the ability to be able to connect with others and see the world from their point of view.

Figure 1. Quantum skills model



Source : Shelton, C. (1999), Quantum Leaps, Butterworth-Heinemann, Boston, MA,

3.2 The action levels of quantum leadership

The new capacities developed by a quantum leader consist in the integration of different aspects of the surrounding reality, the harmonization of these aspects in an intrapsychic plane and ultimately to achieve a certain assurance of self-coherence, which means a new way of thinking according to a higher, integrative, harmonizing and universal consciousness (Niță, 2010).

- ***Leading oneself or self-consciousness*** : Quantum leadership is based on the control of the ego so that it does not constitute an obstacle to the general interest of individuals and the company they lead (Druker, 2010). The quantum leader is anti-ubrist and shows great humility. According to (Keltner, 2003), many leaders decline as they begin to gain more power their human qualities. For (Owen, 2007), power is likely to change a personality in depth by altering its mental functions and behaviours. It manifests itself in a feeling of omnipotence, the cult of the self and invincibility or even a loss of reference points with reality. The danger of the situation is that the "ubrist" damages the lives of others as a result of impulsive and destructive behaviour and can be fatal for the company.
- ***Lead others or others' consciousness*** : Quantum leadership is a matter for the individual and the collective. There is a field of meaning between the leader and the group (Zohar,

1997). From the quantum perspective, the practical problems of organizations stem from the fact that this field of meaning of the organization is not inadequate with its leader. Quantum leaders nurture talent and share leadership with their employees (Kumar, 2007). Their main responsibility is to help update employees' potential abilities and contribute to their growth through relationships with others (Fris J, et al. 2006). Human capital is no longer seen as a passive production unit but as a key element for synergy. Employees serve the organization but the organization only serves their utility needs as long as they comply with its objectives. Spiritual leaders focus on the quality of interactions. They have a strong sense of interconnectedness, understand the connection between spirituality and work, and have an inner conviction of superior strength. By their spiritual intelligence, they are convinced of a superior strength, dedicated to a superior and transcendental cause.

- ***Leading your organization and organizational awareness*** : Leaders should create an atmosphere in which trust, security, dynamic relationships and learning occur, vertical relationships are reduced and horizontal relationships are respected (Kumar, et al., 2007). (Baber, et al.1999) believe that in quantum organizations, human resource optimization is very important and, in such a situation, members of the organization find themselves more valuable and require teamwork, participation in decision-making, and the development of interpersonal relationships and trust.

3.3 The axes of quantum leadership

- ***Transcendence in knowledge : from chaos to wisdom***

In complex times of change and radical innovation, the new task of leaders is to create the knowledge that drives innovation (Quigley, 1997). Companies that do not adapt to the new unpredictable and fast-paced business environment risk losing interest overnight. As a result, it is necessary to get rid of all opinions, and to rebuild knowledge systems again and transcend this knowledge for wisdom and meaning building (Mercier, 2007).

- ***The three types of intelligence***

Quantum leaders combine three types of intelligence : spiritual intelligence (SQ), cognitive intelligence (IQ) and emotional intelligence (EQ) as demonstrated in Table 3. The spiritual quotient is fundamental in the quantum perspective (Nita, 2014 ; Zohar, 2016). (Zohar, 2000)

argues that there are many intelligences, but that all our intelligences, possibly infinite, can be linked to one of the three basic neural systems of the brain and that all intelligences are actually variations of basic rational intelligence (IQ), emotional intelligence (EQ) and spiritual intelligence (SQ).

- ❖ **Intellectual intelligence :** (Edvinsson, 2001) describes the IQ as being composed of three sub-categories : human capital, structural capital and client capital. Each of these can be considered as a valuable asset for an organization in a similar way as "goodwill" on the organization's balance sheet. Human capital is the "know-how" of the organization, structural capital can be considered as the organization's systems or work processes, and customer capital as its relationship with its customers (Thompson, 2010).
- ❖ **Emotional intelligence :** (Goleman, 1995) indicates that success in many areas of life depends on EI (80%) as much as on cognitive abilities (20%) alone. Emotional intelligence includes consciousness and self-control, as well as the ability to get along well with others, which involves the ability to listen, communicate, and accept differences. In addition to this research, recent scientific discoveries have highlighted the significance of emotional intelligence in the managerial sphere as the emotional vibratory scale. For example, when we create a feeling of gratitude, of appreciation, by using the heart muscle to create these feelings, we produce a magnetic field inside our body that is part of the Earth's magnetic field that is undergoing change (Braden, 2017).
- ❖ **Spirituel intelligence :** (Maslow, 1970) included spirituality as a characteristic of people who are self-actualizing. For (Vaughan, 2002), spiritual intelligence is expressed through wisdom and compassionate action in the world. It is necessary for discernment to make choices that contribute to psychological well-being and healthy human development as a whole. Spiritual maturity also suggests insight and understanding based on the willingness to recognize illusions, appreciate impermanence, and face existential freedom. This implies a depth and breadth of vision that encompasses a spectrum of perspectives and multiple modes of knowledge and integrates the inner life of the mind and soul into the outer reality. This intelligence refers to a global way of looking at things and the relationship between objects, people and events : wiser, more patient. Overall, Spiritual intelligence

provides mental, spiritual and physical harmony and a high spiritual quotient means that spirituality can be used to contextualize and value life, to enrich it, to give it meaning, to create a sense of personal achievement, a purpose and a purpose (Zohar, 2010).

Table 3 : Definition of types of intelligences

Physical	Intellectual	Emotional	Spiritual
The physical ability to do things, accomplish tasks, achieve objectives	Allows the formulation of strategies, analyses, associations / dissociations, plans, resolution of different situations	Understand and express one's own emotions appropriately, reconstruct others' emotions, empathize with them and manage relationships	To be connected with oneself, with all the other ones who are part of that self in the universe that is part of the unity

Source : (Niță, 2014) From Emotional To Spiritual Intelligence In Public Administration

4. The correlation between leadership and performance

(Harris, 2009) believes that quantum management can help create innovative strategic options for any organization. According to (Piccolo & Colquitt, 2006), the leader has an effect on organizational performance, but this effect is indirect. It has an impact on variables such as organizational culture, employee motivation, loyalty, etc., which in turn affect the effectiveness and efficiency of the organization (Stewart, 2006). Studies in this area have shown that the quantum paradigm is more effective in the efficient and effective use of human capital, the optimal use of capacities and the organization's ability to learn and change (Poster, 1998). According to (Leithwood & Mascal, 2008), there is a positive correlation in the relationship between organizational culture and organizational performance. We enumerate above some factors that demonstrate how quantum management act on the performance.

It motivate people : (Deardorff & Williams, 2006) have defined quantum organizations as an organizational climate involving a high degree of integrity, reliability and commitment among employees which helps reducing conflicts. Quantum organizations are recognized as a behavioural value by employees. In addition, it is necessary to emphasize that teamwork rather than hierarchy is the basis for restructuring quantum organizations (Zohar 1998 ; Porter-O'Grady & Malloch 2002). (Zohar, 1998) suggests that it is essential in quantum organizations to provide a work environment that is integrated with the understanding of bottom-up organization and holism, and that is organized. According to her, it is important to

keep the capacities of all the organization's staff alive and nurture them with the organizational vision. The vision does not refer here to "our plans for the next five years" or "how we intend to achieve our objectives". On the contrary, an organization's vision is its general sense of identity, its aspirations, its sense of itself on the face of the world and its fundamental motivational values.

It allows the creation of synergy : according to (Deardorff & Williams, 2006), quantum leadership has an impact on performance because it allows to create a synergy. It allow the creation of an organizational capacity to create an empowering atmosphere of trust, safety, and a sense of belonging enabling continuous introspective and organizational learning and the aligning of personal values to behavior. And this is due to the conditional interaction between leaders, customers and individuals creating value for the organization.

It permit to create a balance between competitive and collaborative forces : Performance rises when quantum leadership knows how to create a balance between competitive and collaborative forces (Miller, 2005).

It goes beyond specialization : (Kilmann, 2001) stated that specialization has created widespread fragmentation in organizations. What were once simple problems that could be solved by extreme specialization have become complex problems that challenge fragmented categories. Quantum management allows to give a holistic vision that will enable organizations to clearly see the flowing interconnections, consciously think about interconnected problems in comprehensive ways, and purposely behave in a manner that stimulates the meaningfulness and coevolution of life and nature throughout the world and the expanding universe.

It helps to make a better strategic decisions : Wang a suggéré que penser d'une manière quantique permet de prendre des décisions importantes face à l'incertitude et permet affronter des questions complexes malgré nos ressources mentales limitées. To be able to take right decisions possible, we should put into consideration (in life and work) all probabilities, we must be flexible, adaptive and always think ahead "strategically" and should predict all possible outcomes to come up with a 90% right decision or more. In the quantum model, on the other hand, the addition of the cognitive dissonance component produces interference effects that cause the unknown probability to deviate from the average of the known probabilities.

It enhances the collective intelligence and innovation : according to (Deardorff and Williams, 2006), the dialog initiated in the quantum organization allows the constructive exploration of new eclectic paths composed of a variety of cultures, shared assumptions, shared perspectives, and shared ways of evaluating the results. Hence, it unleashes new ideas that promote innovation as the key component to success for creating new and novel ideas to improve market share and stay competitive with constant changes and chaos around them. (Deardorff and Williams, 2006), added that in this perspective, each member of the organization is eager to participate and to capitalise on the ability to share the perceived and real obstacles to seeing, thinking, and acting in a symbiotic way with expectations of both internal and external customers.

It improves communication and creativity : quantum leadership participates in bringing individuals together in positive ways that remove the constraints of inappropriate structure, control, communication and provide the environment to work creatively and productively on tasks critical to the Quantum Organization. With a strong sense of belonging, employees do not hesitate to act in the best way for the benefit of the organization, that might help to attain higher levels of performance by making a better choice for the organization and for themselves (Deardorff and Williams, 2006).

It was mentioned that these impacts are not exhaustive and that extensive research is needed to evaluate the impact of this new paradigm on the performance of organizations. (Papatya, 2000) have simply argued that « *Quantum leadership is about to improve performance, continuously. But, quantum leadership can not be split into scores and questions concerning performance. Here, the judgement of good or bad is generally complementary. Performance is relative and inter subjective. Furthermore, any attempt to measure performance changes the performance further* ».

Conclusion

The paradigm of quantum leadership can be a powerful management model and its benefits should be of interest to the most discerning managers. It makes it possible to provide operational answers to serious and growing problems and dysfunctions that plague many organizations. As a construct, the paradigm of quantum leadership is still embryonic in the academic world. More extensive and in-depth research is needed to rigorously define its and measure its impacts on organizational performance. Already, the paradigm is confronted with the problem of its specification in relation to other types of leadership. (Stogdill, 1974) observed « *that there were almost as many definitions of leaderships as people who had tried to define it* ». Its mental, organizational and managerial model remains to be specified in view of the vast extent of the concepts it encompasses. (Lazaridou & Joe Fris, 2008) suggest that it is time to widen the field of vision in studies of leadership, starting with a look at quantum leadership.

According to (Gülcan, 2015), the difficulty of studying the impact of leader's behavior on organizational one is due to the fact this relationship does not depend on linear causes. (Gülcan, 2015) adds that when it is recognized that any chaos and complex structure have a certain balance in itself, chaos situations in the leader-spectator relationship can also have the following characteristics : its own internal coherence and balance. However, as (Hamel 2009), mentioned : the field of management of men and leadership paradoxically remains the one where there is a very significant potential for innovation.

Bibliography

1. Alvani SM and Danaifar H (2001). Talks over the Philosophy of the Theories of State Organizations (Tehran Safaar).
2. Baber D, Huselid MA and Becker BE (1999). Strategic Human Resource Management. *Journal of Human Resource Management* 38(4) 321-328.
3. Belet Daniel, (2013). Le servant leadership : un paradigme puissant et humaniste pour remédier à la crise du management, *Gestion* 2000, 1 (30) 15-33.
4. Bezy k. g. (2011). An Operational Definition of Spiritual Leadership, Blacksburg, Virginia Polytechnic Institute and State University, USA
5. Boxer, P. (2014). Leading organisations without boundaries : “Quantum”organisation and the work of making meaning, *Organizational & Social Dynamics*, 14, 130-153.
6. Braden G. (2017). The Divine Matrix : Bridging Time, Space, Miracles and Belief, Col Jai Lu.
7. Carroll B., Singaraju, R. et Park E., (2015). Corporate Learning Factbook 2015 : Benchmarks, Trends and Analysis of the US Training market », Bersin by Deloitte.
8. Collins J and Porras J (1994). Built to last: Successful Habits of Visionary & Companies (Harper – Collins) San Francisco, CA.
9. Darling JR ; Shelton C. (2001). The Quantum Skills Model in Management : A new paradigm to enhance effective leadership. *Leadership and Organization Development Journal* 22(6) 264-273.
10. Deardorff D, Williams G. (2015). Synergy leadership in quantum organization. *The Triz Journal*
11. Değirmenci, Mehmet ; Utku, Sebnem (2000). Une Vue d'ensemble de la gestion et de la structure organisationnelle du point de vue de la mécanique quantique. *Doğuş University Journal*. 1(2) 76-83.
12. Druker P. (2010), Managing Oneself, The Druker Lectures : Essential Lessons on Management, society and Economy, éd. R Wartzman, McGraw-Hill New York
13. Dugan, John P. (2017). Leadership theory : cultivating critical perspectives. Hoboken, N.J. : Jossey-Bass.
14. Edvinsson L. ; Malone M. S. (1998). Intellectual Capital : The Proven Way to Establish Your Company's Real Value by Measuring Its Hidden Brainpower, Piatkus Books.
15. Ercetin SS ; Kamaci MC (2008). Quantum Leadership Paradigm. *World Applied Sciences Journal*, 3(6) 865-868.
16. Friedman, T. L. (2005). The world is flat : A brief history of the twenty-first century. New York, NY, US : Farrar, Straus and Giroux.
17. Fris J. ; Lazaridou A. (2006). An additional way of thinking about organization life and leadership : The Quantum perspective. *Canadian Journal of Educational Administration and Policy* (48) 55-69.
18. Fullan, M. (2017). Indelible leadership : always leave them learning. Thousand Oaks, Calif : Corwin.
19. Giles S. (2018). The New Science of Radical Innovation : The Six Competencies Leaders Need to Win in a Complex World, BenBella Books, Inc. Dallas, TX
20. Goldoff, A.C. (2000). Decision-making in organizations : the new paradigm, *International Journal of Public Administration*, 23(11)
21. Gummesson E (2006). Qualitative Research in Management : Addressing complexity, context and persona. *Journal of Management Decision* 44(2) 167-179.



22. Hadi M. (2011). Quantum paradigm in management. *Journal of Organizational Culture Management* 23.
23. Harris G. (2009). *The Art of Quantum Planning : Lessons From Quantum Physics for Breakthrough Strategy, Innovation, and Leadership*, Berrett-Koehler Publishers.
24. Hougaard Rasmus ; Carter Jacqueline (2018). *The Mind of the Leader : How to Lead Yourself, Your People, and Your Organization for Extraordinary Results*, Harvard Business Review Press.
25. Keltner, D. ; Gruenfeld, D. ; Anderson, C. (2003). Power, Approach and Inhibition. *Psychological Review*. 110 (2) 265–284.
26. Kiel, L.D. (1994). *Managing Chaos and Complexity in Government : A New Paradigm for Managing Change, Innovation, and Organizational Renewal*, Jossey-Bass.
27. Kilmann Ralph H. (2001). *Quantum Organizations : A New Paradigm for Achieving Organizational Success and Personal Meaning*, Davies-Black Pub.
28. Kumar CR, Kaptan SS. (2007). *The Leadership in Management : Understanding Leadership Wisdom*. 1 st ed. New Dehli, APH Publishing.
29. Leithwood, K., & Mascal, B. (2008). Collective leadership effects on student achievement. *Educational Administration Quarterly*, 44(4), 529-561.
30. Lynch T and Cox P (2003). Emergency Management of SARS : A Quantum Leap or A Paradigm Shift. *Journal of Risk Management in Canadian Health Care* 5(6) 65-76.
31. Malloch K. ; Porter-O'Grady T. (2007). *The Quantum Leader : Applications for the New World*, 2nd edition (Jones and Bartlett) Boston, MA.
32. Mapes JJ. (2003). *Quantum Leap Thinking : An owner's guide to the mind*. Naperville, Illinois : Sourcebooks, Inc.
33. McDaniel RR Jr. (1997). Strategic leadership : a view from quantum and chaos theories. *Health Care Manage Rev* ; 22(1) 21-37.
34. Miller, P (2006). Who really matters : the core group theory of power, privilege and success', *Leadership & Organization Development Journal*, 26(1)76-77.
35. Mutlu, A. and Sakinç, İ. (2006). Chaos in management. *Journal of Istanbul Kultur University*, 3, 1-12
36. Naderifar, M., et al. (2015). the role of quantum skills in conflict resolution in educational organization. *Journal of Advances in Medical Education*. 1(2).
37. winter. Niță Aurel Mircea (2015). The New Intelligence, the New Leader and the Organizational Stress, *Revista de management comparat international/review of international comparative management*, 16(3)335-342
38. Niță, A., (2014). From Emotional To Spiritual Intelligence In Public Administration, *Curentul Juridic, The Juridical Current, Le Courant Juridique*, Petru Maior University, Faculty of Economics Law and Administrative Sciences and Pro Iure Foundation, 56, 165-181.
39. Niță, A., (2015). Energetical and vibrational approach and the change in knowledge, *Curentul Juridic*, 16
40. Owen D., (2007), *The Hubris Syndrome : Bush, Blair and the Intoxication of Power*, Politico's
41. Owen D., Davidson J., (2009). Hubris syndrome : An acquired personality disorder ? A study of US Presidents and UK Prime Ministers over the last 100 years *Brain*, 132(5)1396–1406.
42. Pascale RT, Millemann M and Gioja L (2000). *Surfing the Edge of Chaos : The Laws of Nature and the New Laws of Business* (Crown Business) New York.



43. Piccolo R. ; Colquitt J.A.(2006).Transformational Leadership and Job Behaviors: The Mediating Role of Core Job Characteristics, The Academy of Management Journal 49(2).
44. Porter-O'Grady T and Malloch K (2009). Quantum Leadership : A Textbook of New Leadership, (Jones and Bartlett) Boston, M A.
45. Porter-O'Grady T. (1999). Quantum leadership : new roles for a new age. J Nurs Adm ; 29(10)37-42.
46. Porter-O'Grady T. Quantum mechanics and the future of healthcare leadership. J Nurs Adm 1997 ; 27(1) :15-20. 30.
47. Poster Mark (1998). The Second Age of the Media, translated by Salehyar GH (Tehran : Nashr) Iran.
48. Quigley ME. (1997). Quantum organization. Executive Excellence 14(5) :14
49. Sahraoui H. Temnati L. (2019). La problématique de l'intégration de la dimension « Ressources Humaines » dans les décisions stratégiques de l'entreprise, Revue Internationale des Sciences de Gestion, N° 2, 190-209
50. Sarantakos S. (1998). Social Research, 2nd edition (South Melbourne) Macnilon
51. Shelton C ; Darling JR (2004). From chaos to order : Exploring new frontiers conflict management. Organization Development Journal 22(3) 22-41.
52. Shelton C, McKenna MK ; Darling JR (2002b). Leading in age of paradox : Optimizing behavioral style, job fit and cultural cohesion. Leadership and Organization Development Journal 23(7) 372-379.
53. Shelton C. (1999). Quantum leaps : Seven Skills for Workplace ReCreation, Butterworth-Heinemann 1st Edition
54. Stacey RD ; Griffin D. ; Shaw P. (2000). Complexity & Management : Fad or Radical Challenge to Systems Thinking ? (UK : Rutledge) London.
55. Stumpf SA (1995). Applying new science theories in leadership development activities. Journal of Management Development 14(5) 39-49.
56. Vaughan, F. (2002). What is spiritual intelligence ? Journal of Humanistic will, Vol 42, No. 2, 16-33
57. Youngblood MD. (2000). Winning culture for the new economy. Journal of Strategy and Leadership 28(6) 4-9.
58. Zachariev E ; Druckerös Peter (2002). Conception of the new Paradigm. Journal of Economics and Organization 1(10) 15-24
59. Zohar, D. (2010). Exploring Spiritual Capital : An Interview with Danah Zohar, Spirituality in Higher Education, Vol 5, Issue 5, 2010.
60. Zohar, D., & Marshall, I. N. (1990). The quantum self : Human nature and consciousness defined by the new physics. New York, NY, US : William Morrow & Co.
61. Zohar, Danah (1997). ReWiring the Corporate Brain : Using the New Science to Rethink How We Structure and Lead Organizations. San Francisco : Berrett-Koehler Publishers.
62. Zohar, Danah (2016). The Quantum Leader : A revolution in business thinking and practice. New York : Promethens Books.