The paradigms in management sciences...the main element omitted in scientific research

البراديغمات في علوم التسيير...العنصر الأساسي المهمل في البحوث العلمية

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Abstract:
Every researcher uses a specific, precise and justified methodology, and then suggests results that explain, interpret or construct a reality. So, determining the epistemological framework of any research is therefore critical to give the results credibility. This framework is translated by what we call paradigms, which are the basis on which the research is constructed, it's also the Intellectual reference adopted to reach the reality, because it enables the researcher to justify all his methodological choices.
.**keyword**: Epistemological Framework; Paradigms; Positivistic; phenomenological.
JEL classification code : B49, M19

ملخص:
يستخدم كل باحث منهجية محددة ودقيقة ومبررة، ثم يقترح نتائج تشرح أو تفسر أو تبني حقيقة ما. لذلك، فإن تحديد الإطار الابستمولوجي لأي بحث أمر بالغ الأهمية لمنح النتائج مصداقية. تتم ترجمة هذا الإطار من خلال ما نسميه البراديغمات والتي هي الأساس الذي يقوم عليه البحث. وهي أيضًا المرجع الفكري المعتمد للوصول إلى الواقع، لأنه يمكّن الباحث من تبرير جميع خياراته المنهجية.
الكلمات المفتاحية : اطار ابستيمولوجي ؛ براديغمات ؛ براديغم وضعي ؛ براديغم ظواهري.
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1. Introduction :

Tens of thousands of students graduate annually from Algerian universities getting their diplomas which give them opportunities to access the world of work. At the end of their career, they leave behind them their scientific papers that serve as the basis for those who come after them to complete and improve what has been achieved, this is in fact the spirit of the 'theory of knowledge', because knowledge accumulates allowing for improvement in various areas of life. But the observation revealed even unscientific is that these works lack in depth a clear methodology, accurate, based, justified and convincing, especially in the of humanities and social sciences field (economics, commerce, management, literature and languages, law and political sciences and others ...), I.e. in disciplines where the researcher is not independent of research subject. The epistemological framework of research or the adopted paradigm is often absent. Whatever its presence can justify the results obtained even if they are not too important. Therefore, we believe that **obtaining results, although modest, with a clear epistemological framework is better than obtaining good results within the framework of chance or randomness...**

All that we have said about the students works also applies to the researchers , where we find several scientific works in the form of articles, interventions, but they are like presentations which are repeated here and there that can not in any way to contribute on the accumulation of knowledge.

From the above arguments, the features of the research problem that we want to study are more explicit and it concerns the **absence of the paradigm adopted in scientific research in management sciences**. So we will try to shed light on the various paradigms used by researchers in our field of management sciences with more details, with a return to talk about philosophy as it is considered by some researchers as a mother of sciences including epistemology, which is one of its areas.

2. Methodology:

In this work, we will try to emphasize on the obligation for the researcher to adopt a specific "paradigm" as epistemological framework in researches in general and in management sciences in particular, and take it as a starting point in his research. It is a simple idea that already exists and has been revealed by others. But what led us to write this article is the prevalence of the phenomenon of great neglect of this important part of the methodology of scientific research, this is may be

due to the negligence of its importance or the totally ignorance to this element. Trying to explain this phenomenon in this way is our philosophical basis behind the writing of this article. Therefore, we adopted the descriptive approach in its simplest, static and relates to content. For the collection and analysis of data, we mainly relied on the qualitative method as, in our view, the most consistent to the descriptive approach, which does not rely too much on quantitative data generally presented in the form of numbers, tables or statistics unless it is related to the phenomena that originally contained Describe and analyse these quantitative data as a description of the phenomenon of strikes in a sector based on the number and frequency of this phenomenon. Our article does not include hypotheses about the causes of the absence of the epistemological framework...We just want to demonstrate its importance in scientific researches.

The nature of this research also obliges us not to use the primary data, there is no need to use the questionnaire, interview and other primary tools. We focus on external secondary data through books, articles in Arabic, French and English that talk about paradigms in scientific researches. In order to avoid the contradiction with what we hope from our article, our work can be classified within the phenomenological paradigm.

3. The literature review and discussion:

3.1 Epistemology and Science:

Epistemology is the science of science where it is concerned with studying the mechanism of science, which is the key to the legitimacy of science **(فاتح دبلة، 2011، ص3)**. Epistemology is also called knowledge science, which means épistémo(knowledge), logie(science). The philosophical lexicon has defined it as a research critique of the principles of science and of the logical origins of these principles.

« Le Robert » also defined it as: a system of ideas that seeks to lay the foundations of science. But what is the meaning of science?

This question has plagued many philosophers throughout the ages. It is defined as: "a set of general knowledge about a subject or something." **(حسين سعد، 2017، ص14)** It is also known as: "true، universal، and fulfilled knowledge، expressed by laws".

We can not through one definition include the meaning of science, but it may treat one its aspects. One of the recent researcher, Karl Popper, argues that any theory can only rise to science if it can be generalized. This is a problem because generalization may be invalidated by the discovery of a single case that abolishes this rule, although we try to justify this exception by confirming the rule, and we

say to each rule has an exception. Popper rejected this opinion and never accepted it despite his fame. He said that the exception is in fact cracking and destroying the rule of its origin. On the other hand, how to prove the validity of scientific theory? ...He gave a solution by the possibility of refuting, rejecting or falsificating this theory. Accordingly, **any irrefutable theory is unscientific. T**herefore every theory that has not been refuted with its irrefutable remains stays a scientific theory unless it is refuted.

For example, if someone says when we mix 60% milk with 40% lemon, the milk will taste sweet. We do the experience to discover that the mixture has bitter taste. This is an incorrect scientific theory. Another one said if we mix the milk by 60% with lemon by 40%, the morale of the drink mixer will rise to 10^2. Basically, this is not a scientific theory because we cannot refute it. This is called the empty issue in positive logic.

Before Popper, Bertrand Russell defined the goal of science in discovering partial realities on a subject by observation and reflection, and then discovering the laws that reconnect these molecules to one another, allowing for the anticipation of these events in the future. it's the same vision as henri Poincaré who believes that science is a the way of bringing closer together incidents that separate aspects, even though they are related with natural and hidden relation. Science is a system of relationships. Hence the objectivity of science in knowing the true relationships between things.**(حسين سعد، 2017، ص41)**

One may say that this analysis fit in the context of talking about the seen science '**علم الشهادة**' governed by natural and scientific laws, which enables our minds to grasp the various sciences and discover, understand, and interpret its laws. The unseen world '**عالم الغيب**' is a world with its own laws and is based primarily on faith in God. We say that this is true, but we must not forget that epistemology deals with knowledge. The issues of faith are not basically under epistemology, but it belongs to the first section of the philosophy which is metaphysics.

3.2 Criticism of the methodologies:

Before the advent of the methodology, Aristotle's logic dominated researches, on the grounds that logic was the science of the laws of thought or the science of the correct thinking that must be

learned before engaging in any other science. **(حسين سعد، 2017، ص61)** and relying on Syllogism and deduction as methods of knowledge. This idea was particularly criticized in the Middle Ages by several scholars such as Galilee (1564-1642), Nicolas Copernicus(1473-1543) and René Descartes (1596-1650), and especially Francis Bacon (1561-1626) who presented his ideas in his book titled "The Advancement of Learning in 1605", where he called for relying on facts and supporting evidence with perceptual evidence (empirical science).**(حسين سعد، 2017، ص91)** He confirmed that :

- ✓ The source of true knowledge is nature and not reflections and interpretations.
- ✓ Logic does not always fit to know nature.

4. Epistemological Schools:

4.1 Rationalism:

It is a doctrine that tries to interpret knowledge based on mind while excluding experiences and senses, because our senses can deceive us. René Descartes is one of the most prominent pioneers of this school convinced by what he calls the **innate ideas shared by humans**. He said that « the mind is the fairest things distributed among people because everyone believes that he has given enough of it, even those who is difficult to satisfy them by anything else which is from their habits to want more than that they have » **(سامية عثماني، 2017، ص7)**. Baruch Spinoza (1632-1677) emphasized also on rationalism by cleaning the brain from false ideas and vague perceptions. As well as Gottfried Wilhelm Leibniz (1646-1716) through logical process to reach the inevitable results in a purely theoretical approach, deductive. Leibniz confirms the possibility of explaining everything from simple basic elements that are carefully paired according to the method of mathematical rationality. This doctrine does not take its reference from experience, but rather to think logically and correctly. In pure mathematics, this approach remains perfectly valid, but this validity is greatly reduced when we are in front of tangible reality. " **(Omar Aktouf, 1987, p18)**

4.2 Empiricism School:

It is also called the loke's approach where John Locke (1632-1704) rejected the absolute thinking (idéalism) in exchange for raising the value and importance of the senses, but without giving them a central

role in knowledge. Knowledge is between our pure thinking abilities and our sense organs and our concrete experiences. Research here is based on the rational exploitation of experience and observation, so the scientific reality will obtain the broadest consensus within the scientific community. **(Omar Aktouf, 1987, p18)**

Perhaps George Berkeley (1685-1753) exaggerated his claim that matter does not exist at all (immaterialism) and sensible things are those only which are immediately perceived by sense.

David Hume (1711-1776), who is also regarded as one of the pioneers of the empiricism school, used the empirical reasoning method to construct knowledge according to the sensory principle without any rational addition (ie, the opposite of Descartes's view). It is a philosophical theory based on a major postulate that all our knowledge comes from experience without any rational reasoning, and this leads to research the causal relationship and negating the necessary link between the phenomena perceived by our senses." **(حسين سعد، 2017، ص37)**

Hume sets rules to judge the causes and consequences which are:

- ✓ The cause and effect should be adjacent in space and time.
- ✓ The cause must precede the result.
- ✓ A permanent correlation between cause and effect.
- ✓ One cause always produces one result.
- ✓ Inevitably, for a variety of causes we got one which must be achieved by something that is common to all of them.
- ✓ The difference in the result reveals a difference in the cause.

The epistemological consequence is that reality does not come from rational theories but from internal and external experience. Knowledge comes from application and the empirical researcher is very interested by describing the details of test or experience to accept the results. This paved the way for the emergence of the positivist school.

4.3 The positivism:

This school was associated with the French philosopher and sociologist Auguste Comte (1798-1857). He was the first to argue that sociology must establish its foundations on the science of life. The laws of sociology are the corresponding part of the laws of life, and science must evolve to achieve the stage of positivist knowledge. This one is based on observation and experience and not on intuition or deduction. Comte wondered saying: '**from our study of nature can we study**

society?' Natural physics studies static and changing phenomena. Can the physics of society be studied according to the method adopted in the study of natural phenomena?

The bottom line of positivist philosophy is that the modern scientific view requires that the view of the researcher must be limited by reality, ie, the limits of what is apparent to the organs of sense and tools of experience. Science studies the concrete and realistic phenomenon that can be subjected to experience ".**(حسين سعد، 2017،ص93)**

Here we can also note with careful attention the contribution of Emmanuel Kant, who stood between rational and experimental schools, and said that knowledge begins with experience but does not create it, which is also called criticism of pure reason. He explains that without the previous and transcendent rational judgments, knowledge would not have been established. With those judgments we got a meaning to the inputs of experience. He also warned not to confuse the means of perception with subjects of perception. For example space, time or causality belong to the means of perception in our minds and they are not subjects of perception. So time, space, and the law of causality are rational templates by which we recognize the results of sensory experiences.

4.4 Evolutionary School:

It is a doctrine that applies the idea of evolution to all species. The most important Darwinian theory of the evolution of species, explained by Charles Darwin (1809-1882)in his book Origin of Species published in 1859. Where Darwin considered life as a struggle for survival and survival is always the fittest according to the law of natural selection.

In the social sciences, society is no longer seen as an automated contract, but a living organism and a unit of a group of cells that function harmoniously, and this led to emergence of anthropology. Despite the criticism of anthropologists for the theory of evolution, which neglects human cultures and looks at the same view of its contents from underdevelopment to progress.**(حسين سعد، 2017، ص34)**

4.5 Revolutionary School:

The general and special relativity theory of Albert Einstein (1879-1955) are perhaps the most influential scientific revolution at the beginning of the twentieth century. This theory changed many concepts in physics, especially with regard to space, time, mass and energy, and considered that the movement is relative. Time is no longer absolute,

but a fourth dimension that merges with the three spatial dimensions to produce the term "space-time", and time and space have become one thing. Thus, all the classical physics changed according to the concept of Issac Newton.

This scientific revolution in physics moved to the natural sciences, social sciences and humanities. "The history of science interprets the moments of crisis in development of a science, and it is the crisis that confirms the scientific revolution that changes the foundations of the prevailing and prevalent science or the applied paradigm. A new theory or new paradigm will be created to become the mainstream or normal science as it is also called.

Thomas Samuel Khun (1922-1996), who is considered as the pioneer of this school, seems to have been influenced by this view and revealed a "rebellion" on the philosophy of science through his book titled "The Structure of Scientific Revolutions" published in 1962, which revolves around his new conception of the term 'paradigm'. "This concept is immeasurable and its facts are relative. There is a disconnection between the different basic theoretical concepts in science.

The paradigms in the history of a single science are fundamentally different from one another and replace each other in the line of the historical development of scientific knowledge. In each scientific revolution, a certain paradigm prevails." **(توماس كون "ترجمة شقي جلال"،1992، ص12)**

4.5.1 Thomas Khun's Science Concept:

Science does not develop in a regular pattern, but closer to be revolutions and therefore divided science into two types according to Khun:

A- Normal Science:

It is the science daily practised by scientists with precise rules which are considerer as the theoretical vocabulary used by scientists during their researches. It is cited by everyone in the scientific community when studying a phenomenon. The quality of the questions that the researcher must ask, how to examine these questions and how to interpret the results enter the sphere of normal science ... It is what scientists understand about science and how to practice it, or more precisely what scientists agree to become science. During that period, all that matters to scientists is to solve scientific problems and fill in the blanks in their knowledge scheme. It is like playing "crossword

puzzles". During normal science periods, their job will be reduced in use of a set of guiding information given next to the game box and linking them together, and collaborating with others ... Fill in the blanks with appropriate letters until the entire game is complete is the main goal here,

As scientists practice their daily work, it may happen that an anomaly appears, an experimental result that differs from what is supposed to happen. Here, initially, the researcher thinks that there is something wrong with the experiment or its understanding of it, or perhaps because it is not specialized in part of what he decided to go through. He will try to cover up this anomaly by setting an additional hypothesis, or modifying experiments.

When the crisis develops and the anomalies cases accumulate, the disaster occurs in Khun's expression, and we are faced to a real problem that could never be solved even we repeat experiments or add new hypotheses. Here the scientific community loses confidence in its vocabulary, and some scientists are forced to radically change their way of thinking. So that they somehow deviate from the basic hypotheses written in their references, which they rely on every day in applying their methodologies.

B-Revolution Science:

We will come back to Einstein's relativity. In the beginning, the scientific community agreed on several rules to practise its daily scientific process in a quiet and stable manner such as the flow of a river. One of the hypotheses agreed by all was the idea of "Aether", this sphere that allows the moving of light through the vacuum, but its speed differs according to the direction of the Aether. It is like the movement of the boat with or against the direction of the water stream. In the first case it will be faster, but a problem has arisen when Michelson et Morley[1] tried to measure that difference in speed with a modern device developed by them… The speed of light remains constant no matter how we change its direction. The experiment has been repeated more than once and some physicists have developed complementary or auxiliary solutions but no one has succeeded, there is

[1]تجربة أجريت في عام 1886 عن انتشار الضوء وسرعته في الخلاء. وهي من أهم التجارب في الفيزياء والتي نسفت نظرية الأثير.

a real problem that we cannot be overcome. Then Einstein, who might have simply asked himself: "If all the methods are not possible, and all attempts to cover that discovery have failed, **is it possible that the solution is to try to review the rules on which we analyse our problems? The backgrounds themselves? What the references say? Newton's theory, who has been on the throne of physics for more than 200 years?** "So we would not be surprised to know that Einstein published his first scientific paper on special relativity without any reference.

This is where the revolution that Khun calls "**Paradigm Transformation**" occurs, where some scientists present completely different ideas that do not follow the rules that have prevailed for decades and perhaps for centuries. These ideas are not only new or specific theories about a crisis, but a real revolution in how we understand science.

"Khun's book has been criticized for not destroying its ideas but to get it as a platform for new additions and for richer researches." **(توماس كون "ترجمة شقي جلال"،1992، ص17)**

But where are them...

We would also like to try to answer a question that some scholars might ask about not mentioning any Arab or Muslim philosopher or scholar when speaking about philosophy and epistemology. We confirm that the Arab or non arab Muslim philosophers had participate in knowledge development such as Abu Hamid Ghazali, Ibn Sina, Ibn Rushd, yacoub bin Ishac bin Sabbah Al-kindy, Al-Farabi, Ibn al-Haytham, Ibn al-Nafis and others. They were also recently present as Zaki Najib Mahmoud, Malik Bin Nabi, Mohammed Abed Al Jabri and many others. They presented new ideas and worked hard, sometimes they were right, and other times they were wrong, and this is the case of all human acts that are always in shortage. Perhaps among the reasons why their scientific contributions have not been highlighted by the scientific community:

1. Atoning them (takfir) in the name of religion or considering them as heretics by some "sheikhs" and "scholars". In other words, even if their 'kufr' is true, why we underestimate the value of their scientific works proven in medicine, for example, or in physics such as Ibn al-Haytham, Ibn Rushd and Ibn Sina. And in the other side, we cite

the works of Bertrand Russel and Karl popper in epistemology, although the first is atheist and the second is "Antagonist" [2]!!! It's contradictory.

2. The blind sectarianism in which Muslims sink under the influence and sometimes the leadership of dishonest Western politicians and those of United States grows and intensifies with the beginning of the twenty-first century. For example, the ideas of the famous Iranian philosopher and sociologist Ali Shariati (1933-1977), are rejected by the Sunni part because he is a Shiite, and the Shiites deny it because he don't cursed the secon Calife Omar Ibn al-Khattab !! But neither these nor those have turned to his scientific works and ideas, especially in sociology.

3. Another reason we formulate in the form of a question which is : why the Europeans derivate the names of some philosophers so much that they we cannot recognize them...For example they call ibn rochd by Averroes Averroes and ibn sinaa by Avicenne?

4. Intentional lack of attention to the real intellectuals who enlighten the way for people aspiring to obtain their rights and below which to live in freedom. In the other side, they exalt whipper-snapper and moral fallen. The Arab world is full of ugly forms in various arenas, especially the "artistic" arena, which offers "successful" models to become the compass of young people towards self-realization.

5. The concept of paradigm:

Paradigm is a word derived from the Greek origin (paradeigma) which means "example" or "pattern". Which mean: "the guiding knowledge model at the relevant time", and since it relates to a certain age it is therefore a current, temporary and variable.

« The concept of paradigm according to Khun's view, allowed a shift in scientific research from the interpretation of science in terms of macro-scientific principles or laws to the adoption of a framework to serve as **a reference** for the validity of scientific theories or knowledge, in which Knowledge comes out of determinism and certainty towards relativity, and the absolute principles of interpretation of phenomena

[2] But we can not generalize this fact because there are those who do not share the vision at all with other researchers, but they discuss and debate their ideas.Such as what Sheikh Salman Al-ouda does with Mohamed Abed Al-Jabri about his book Understanding the Koran.

and understanding of the world diminished » **(حسين سعد، 2017، ص47-48)** In this area, Jacob François says: "**Nothing is more dangerous than the certainty of being right**".

"By Kuhn's definition, these paradigms represent many mental diagrams or reference frameworks in which researchers in different sciences can fit into, etc." From these models generate diverse schools of thought and theories. **(فاتح دبلة، 2011، ص8)** One may ask the question about the non translation of this term to Arabic and we keep the word paradigm even in Arabic speaking. We prefer the "Arabization" instead of "translation" because translation in some cases wastes meaning, and makes researchers in the same field lost between a number of translated terms and concepts, For example, we find the terms of the « al-madkhal », « annamoudhaj », al-ittar al-falsafi »... The Arabization of terms is not new in the Arabic language, we have previously « Arabized » many scientific terms in various fields such as electron, automatic, strategy, bank, psychology, physiology, anthropology, democracy, the Internet, megabytes, and many other terms. This is not a shortage of Arabic language as much as a negligence of us a native speakers. The lack of our contribution to the production of knowledge has led others to produce modern terminology compatible with the language of the current time.

6. Results:

6.1 Pradigms used in management sciences:

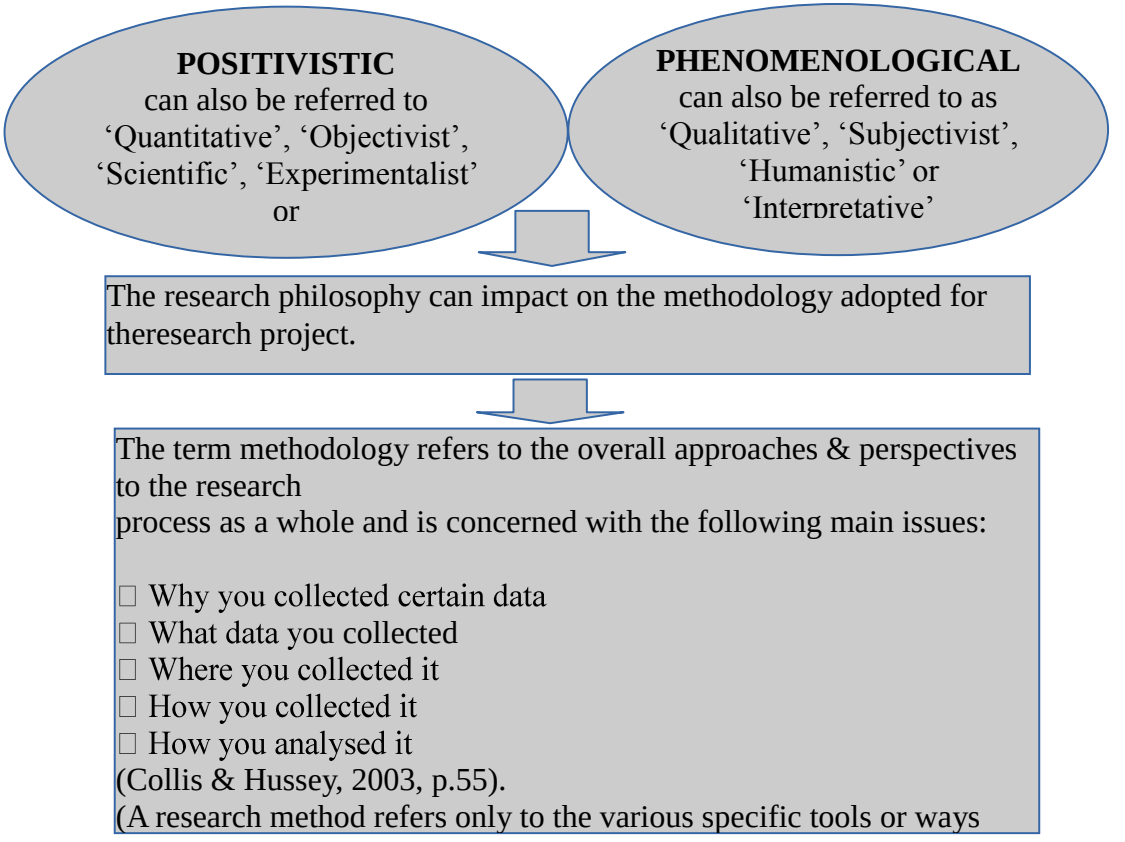
Through our research in various references and studies, we have found that there are at least two views of **the paradigms in management sciences.**

The first one [3]is that the research is not "neutral", but reflects a set of personal interests of the researcher and his values, capabilities, assumptions, goals and ambitions. These elements will not only determine the subject of our research but will also affect our approach to it. Therefore, it is important to think in advance about the philosophy that we will adopt in our research.

[3] Neville.C (2007) ,Introduction to Research and Research Methods, Bradford university, school of management, Effective Learning Service, p-p 4-7.

There are two basic philosophies in scientific research according to this view, although there can be overlaps between them, and can identify both positions in any research project. It is positivism on the one hand and on phenomenological philosophy on the other hand.

Figure (01):The basic philosophies in scientific research



Source : Colin Neville (2007), p 5.

- **Positivism:**

Positivism is based on commonly used research methods in science. It is characterized by a separate approach from research that seeks the causes or social phenomena in a consistent manner. Positivism approaches is also based on the belief that the study of human behaviour should be conducted in the same way as nature studies.

Positivistic paradigm seek to identify, measure and evaluate phenomena and provide a logical explanation by creating causal links

between the different elements (or variables) of the research topic and linking them to a particular theory or practice. There is a belief that people respond to external motivation or themselves forces and norms that can be detected, identified and described using rational, coordinated and deductive processes.

- **Phenomenological paradigm :**

The phenomenological paradigm tackles research from the perspective that human behaviour cannot be measured as easily as phenomena in the natural and exact sciences .For example, it is difficult to generalize internal by just observing the behaviour. Moreover, people put their own opinion about events. These opinions do not always coincide with the way others have interpreted them. This approach also assumes that people often influence events and behave in unpredictable ways that undermine any established rules or standards.

The phenomenological approach is particularly concerned with understanding behaviour without neglecting the frameworks and subjective references of researchers. Therefore, research methods are chosen to try to describe, explain and interpret events according to the perspective of researchers.

The second one :quoted by Raymond-Alain Thiétart who mentioned in his book entitled "Méthodes de recherches en management, the fourth edition (2014)", where he states that scientific research in management sciences should be under the following paradigms exclusively:

- **Positivistism:**

This paradigm allows access to the reality by explaining it. We can mention the following characteristics : **(فاتح دبلة، 2011، ص11)**

- ✓ The independence of the researcher (sujet) from the subject of research (objet) because the reality exists in itself and the researcher should only explain it.
- ✓ Neutrality of analysis as one of the conditions for the production of objective science.
- ✓ Its hypotheses are realistic (absolute) as well as specific and determine.
- ✓ Priority of quantitative and causal data by relying on quantitative pathways.

- ✓ The value of scientific knowledge is determined by the extent to which it can be verified, rejected or refuted (according to the Karl Popper principle), as well as the possibility of predicting as a criterion for scientific science.

- **Interpretativism:**

The followers of this paradigm believe that the process of producing knowledge passes through an understanding of the meaning that actors bring to reality.**(Raymond-Alain Thiétart et coll.,2003, p23)**This trend is characterized by : **(فاتح دبلة، 2011، ص11)**

- ✓ Understanding the reality is given through the explanations provided by the actors in it.
- ✓ The process of producing knowledge passes through an understanding of the meaning that individuals bring to reality.
- ✓ There is no autonomy between the researcher and the topic of research (subjectivity).
- ✓ Its hypotheses are relative.
- ✓ Precedence of qualitative data over quantity.
- ✓ There is a postulate of situational variability of the relationship between behaviours and meanings, ie the existence of dependency and correlation between the researcher and the phenomenon studied.

- **constructivism**:

He shares the explanatory paradigm in the attempt to understand, but disagrees with him that he believes that the procedure of understanding contributes to build the reality of the actors studied. Reality is built through knowledge and not world's understanding **(Raymond-Alain Thiétart et coll.,2003, p24)**. The main Characteristics of this paradigm are **(Raymond-Alain Thiétart et coll.,2003, p31)** :

- ✓ Radical structuralism speaks about the invention of reality.
- ✓ Knowledge is formed by the intersection between the researcher (sujet) and subject of research (objet) because the world is composed of personal social, and cultural elements, ... etc. Knowledge is derived from this complexity by the meanings given to reality.
- ✓ The hypothesis is intentional and the knowledge obtained is subjective and circumstantial.
- ✓ Control the research in qualitative ways.

The various epistemological questions to be answered before engaging in scientific research are summarized in the table below, indicating the position of each of them.

Table (01) : The various epistemological cases

Paradigms Knowledge	**Positivistism**	**Interpretativism**	**constructivism**
What is the status of the knowledge?	***Realistic hypothesis** *There is an essence specific to the object of knowledge	**Relativistic hypothesis** The essence of the object can not be reached	**Relativistic hypothesis** The essence of the object can not be reached (moderate constructivism) or does not exist (radical constructivism)
What is the nature of reality?	***Independence** of the subject(researcher) and of the object(of research) *Deterministic hypothesis *The world is made of necessities	***Dependence** of subject and object *Intentionalist hypothesis *The world is made of possibilities	
How does knowledge arise? Methods of scientific knowledge	***Discovery** *Research formulated in terms of "for which causes ..." *Privileged status of the explanation	**The interpretation** *Research formulated in terms of "for which motivations of the actors ... " *Privileged status of understanding	**The construction** ***Research formulated in terms of "for which finalities ... " *Privileged status of construction
***What is the value of the knowledge ? *Knowledge acceptance criteria**	*verifiability *confirmability *falsifiability	*idiographic *Empathy (revealing the experience of the actors)	*Adequacy *teachability

Source : Raymond-Alain Thiétart et coll. (2003), p25.

This table shows the various relations between the adopted paradigms and the differnent research paths. The choice of paradigm entails adopting a number of options in terms of quantitative or qualitative research methodology, data collection tools, inductive or deductive research ...

Anyone who works in this or that paradigm systematically will contribute to the production or development of normal science, while working out these models in the sense explained by Khun will produce the science of the revolution..

6.2 The multiplicity of paradigms and the positioning of the researcher:(Raymond-Alain Thiétart et coll.,2003, p30-32)

As researchers, we have the right to ask the following question: **Should a researcher adopt a single pradigm or does he have a margin of freedom that allows him to adopt more than one paradigam in the same research?** The answer to this question depended on the position of the researcher concerning the immeasurably of these paradigms.

The simultaneous presence of the three paradigms in management sciences could be an indicator of the immaturity of this science. This immaturity is due to the fact that this science is still "young", and is at stage of "before the paradigm." Isabelle Strengers adds that all sciences that have no paradigms are just “ideological pretension”. It’s nearly the same view Khun who has pity to the pre-pragmatic sciences. But at the same time, Khun himself considers that the existence of a single paradigm is an indicator of the dominance of the ordinary science and the multiplicity of paradigms can be symptoms of scientific revolutions.

However, the field of management sciences research currently revolves around two or three types of paradigms shown above, despite the difference in adoption of one or more paradigm.

The proponents of the idea of multiple paradigms, but not in the same research-, believe that it is necessary to choose one paradigm while excluding the possibility of “reconciliation” between the three paradigms.Thus, the fragmentation of the science of organizations is inevitable, and even Burrell and Morgan regard the adoption of paradigm as a question of faith!

The proponents of the multi-pragmatic approach in the same research adopt the possibility of a “dialogue” between the three

pradigrams and even hope it to develop an understanding of social phenomena. The diversity of paradigms is an opportunity for the researcher to enrich his knowledge through this multiplicity. Koenig points out that this diversity of approaches is important, because every approach allows us to know aspects of complex reality.

The proponents of integrating these paradigms argue that the management science is indivisible and call for intensified studies to seek **a common, normative and reference paradigm** that is the only guarantor of a real scientific development, such as Miles et Huberman (1991) when they proposed the term "adjusting positivism".

7. Conclusion:

The abusive use of the quantitative approach in human and social sciences is the main motivation behind writing this article. We want to remember that scientific research is not a simple "automatic process" which is always based on the selection of two variables in particular, extract a number of dimensions, linking these dimensions, drafting the questionnaire, distributed it and entering data into the SPSS program, get numbers,,, And easily, giving generalizations on problems that are more complex than imagined by researchers. This method ensures the researcher because the numbers give him some "immunity" to the results presented, which are in fact far from reality. "**Although quantitative approach can be easier to start, it can be often difficult to interpret and present the findings; the findings can also be challenged more easily. In the other side,the qualitative approach, although harder to design initially, is usually highly detailed and structured and results can be easily collated and presented statistically." (Neville.C 2007 ,p 3)**

The identification and justification of the paradigm adopted in scientific research in management sciences is the first and basic step before diving into the depths of the research, because it will facilitate to the researcher to visualize his subject of research and then determine his way to understanding either by explaining or interpreting or constructing, and the parameters of his research will be more clear in terms of being quantitative or qualitative research or a combination of them, will he choose the deduction and/or induction and/or abduction. Which kind of data will he collect (primary or secondary)? Will he use

the questionnaire, interview, observation, focus groups, or make do with the organization's internal data or pair it with external data? In short, his research methodology will be homogeneous from the selection of the paradigm until the analysis and interpretation of the results and give suggestions and recommendations.

8. **References:**

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