

## The managerial competencies of piloting performance facing of the digitalization challenges

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### **Abstract:**

The piloting of performance became the major worry of the responsible for the today's firms, notably with instability and uncertainty characterizing markets. This preoccupation finds speeded up following movements of digitalization pervading the economic and social environment of firms. In front of these changes, the competence of the managers, as the pilot of their activities, knew a redefining throughout the literature of the sciences of management, to accompany requirements imposed by the generation of the use of information technologies (IT). In this context, searching us, by the present to study the manager competence of piloting of performance facing challenges of movements of digitalization. This study has as objective of work out a theoretical research model simplifying relations likely to be appeared between the different determiners of manager competence and the piloting of performance. For it, we initiated this research by a conceptual analysis with a view to defining the main items of our themes, to introduce the main explicative models of manager competences. By basing us on this theoretical study, we succeed in working out a theoretical research model identifying relations between select variables. In this model, the manager competence of piloting of performance is a dependent variable at the same time, in personal competences (classics) and in manager competence in TI. The first one reflects the competences of a manager except changes imposed by the digitalization, while the second is the other dimension of this competence which is demanded by the digitalization.

**Keywords:** manager competences; performance management; piloting; digitalization

**Classification JEL:** M15 & O32

**Paper type:** Theoretical Research

## 1. Introduction

In an economy where information technology (IT) dominates all their aspects, the today's firms find themselves made to fit to changes caused by the general implementation of the use of IT. These changes, which appear in the form of digitalization of all the mechanisms of the market (process of exchange, communication and coordination between the actors of the market), confuse organizational structures as well as manager practices (Pashutan et al., 2022). In front of such a situation, we attend the emergence of virtual structures characterized by the intensive usage of IT as well as the manager's competence's modern which pilot the performance of their firms in a changeable and uncertain environment. In this context, in perpetual evolution, the modelling of the structure of competence of the managers was the objective of numerous studies very during the literature of the sciences of management ( Bertoncelj, 2010). This importance of the study of the competence of the managers in the digital age, to explain by the role that occupies these last in the evolution of their firms as pilot of their activities and from their teams. The results of the literature, centred on the study of the impact of the general implementation of the use of IT on manager competence, make it appear of the explicative models of this competence in which it appears from variables representing the components of this last, in most cases (Winterton et al., 2006). In front of the curiosity of work having examined this competence in the test of the challenges of the movements of the digitalization, our study has as objective to analyse the evolution of these problems, firstly, throughout literature in the field, and later to model the relation between manager competences of piloting of performance in the test of movements of digitalization of the economic and social environment of firms. For it, we are going to work out a theoretical research model, initially, by basing us on an analysis deepened by theories in the field with a view to answering our question of following research: **« what are the determiners of manager competence for the piloting of the performance of the Moroccan firms in the digital age? »** to test it in a future empirical investigation, later.

In what follows, we shall begin with a conceptual analysis of the main items of our themes by trying to advance, definitions linked to concepts of competence, as well as a magazine of literature to concern the analysis of work studying the relation of the competence of the managers and the piloting of performance. Afterwards, we shall go about things on examination of main theories and explicative models to take out again the constructing theoretical explaining relations between the variables of our themes to work out a theoretical frame of research. Later, we shall introduce the model worked out by research in which we are going to specify different relations likely to be appeared between different variables. Finally, we are going to specify our epistemology positioning regarding the post positivist paradigm, as well as our choice of qualitative approach and method of studies of numerous cases for the realization of a future empirical investigation.

## 2. Conceptual Framework

The notion of competence and that of the piloting of performance have summers the object of various tries of definition throughout the literature of the sciences of management. The first one refers in most cases to their fields of application, while the second is stability and certainty of steps appear following changes impactful. These changes drove to the collapse of the paradigm of the control of the performance and emergence of that of its piloting (Lorino, 2003). In what follows, we are going to introduce, firstly, the main definitions linked to the notion of competence as well as the theoretical foundations of this last. Later, we are going to undertake a literature review to head with relation between the competence of the managers in the digital age and the piloting of performance.

## 2.1 Definitions and Theoretical Foundations

In general, we know what mean terms "competence", "competent behaviour" or « anybody competent », without being able to define them or differentiate them apparently. The same thing can be said for terms such as "capacity", "skills", "competence" or "effectiveness" (Ruth, 2006). Different definitions were appeared in literature, for instance, the Webster dictionary defines "competence" as « aptitude or capacity ». Words given as synonyms or terms related to are "capacity", "effectiveness" and "competence".

Dominique. S et al. (2002) defined competence as being the capacity to answer requests or to complete with success a task and consists of not cognitive and at the same time cognitive dimensions. A competence is defined as the capacity to answer successfully individual or social requests or to complete with success an activity or a task. Competence is a combination of knowledge, motivation, orientation of stocks, attitudes, emotions and other social and behaviour elements which can be mobilized for the realization of an action determined to have efficient results. Competences are visible only in the real actions taken by individuals in particular situations. Dominique. S and al. (2002) identify in a context of collaboration seven components of a competence to know knowledge, cognitive competences, practical competences, attitudes, emotions, stocks and ethics and motivation.

Competences are means which has every organization as keys of effectiveness and efficiency. A competence is developed by action and correlation in informal and definite instructive contexts. Besides the instructive system, other institutions are, also, responsible for transmission and for development of necessary competences: the family, the workplace, mass media, the religious and cultural organizations, etc. The acquisition and the assertion of competences depend, partly, on personal efforts and on the other party, in the existence of a favourable organizational, institutional and social environment (Bassellier et al., 2001).

Different classifications were appeared by the literature of the notion of competence, in most cases, the following two will be moved forward by Dominique S et al. (2002):

- **Competences keys:** this notion is used to indicate and differentiate competences which allow to the individuals to contribute to the realization of competitive results by efficient participation with numerous contexts or social domains and that contribute to the success of the life of the individuals and to the good functioning of the society.
- **Specific competences:** that is to say competences which apply to a particular domain (for instance, play the piano or work out appropriate indicators for policies). These competences have an individual impact and the results of said competences are not who can be generalized in all society. They are not necessary for everybody or have no impact on the improvement of the quality of life of the individuals and the society.

It is necessary to note that the social consequences of competence keys do not marginalize the importance of specific competences. In fact, competence keys do not take the place of specific competences in a domain, they supplement them.

Major changes touch the domain of business further to the policies of globalization and the technological bomb forcing passage in manager practices founded on specific competences (Cheit, 1985). It is in this new context that different tries of definition of term competence were the object of approaches and various theories. In this frame, Cheetham and Chivers (1998) maintain that main professional competence is cogitation. They tackle the question of generic competences of high level and meta-qualities (Reynolds and Snell, 1988), meta-qualities and also Eraut et al. (1994); Ozar (1993) and Trehan (2004) draw attention in postulates, ideas and stocks hidden in the practice of the development of human resources.

Three main approaches provide definitions of the notion of competence according to different criteria for the others, to know behaviour approach, standard approach and situational approach (Ruth, 2006):

### - **The behaviour approach of competence**

The problems for all approaches are that of the valuation of competence. For behaviourists, the analysis is founded on special performances, and competence was assessed at the level of the real behaviour which is defined, in terms of subjacent characteristics, knowledge and motivations, which were linked in a causative way to the upper performance (Stuart and Lindsay, 1997).

### - **The Standard Approach of Competence**

It is an approach which is founded on the valuation of competence and level minimum of performance accepted in a given work and to concentrate on real results (Tate, 1995; Finn, 1993). This approach rests on a functional analysis and is short of focusing on development and competences, in products and in results, ignore the competences of the process and it normalizes norms by assuming that every unit is also important (Iversen, 2000).

### -**The situational approach to competence**

The object of this approach is to explore the mailmen who influence requested competences. It is a more definite approach than culturally contextualizes frames of Hofstede (1991) and Trompenaars (1993). Jobs of Morgan (1988), for instance, is concentrated on the change, So Gay (1995) examines competences requested by the international administrators, and Chong (1997) compared the Singaporean and British administrators and suggested that it would perhaps be possible to have the appropriate group of competences in management on transnational border.

The common character between definitions introduced by the aforementioned different approaches is that they do not arrive at a general agreement (Strebler et al. 1997; Jubb and Rowbotham, 1997) and term continues being used according to the agenda and the objectives of the different dealers having different preferences (Burgoyne, 1993), depending on whether it is about a psychologist, about a theoretician of management, about a responsible for human resources, about a teacher or about a politician.

## **2.2 The Manager Competences of Piloting in the Digital Age**

The management of the use of technologies of information was initially entrusted to the hierarchical responsible, qualified by the managers, in firms. It is them who are competent enough in their sectors to identify the most efficient means to use this means. Also, they are the best putting to exercise the necessary influence to insert IT into their strategies and hire necessary resources. In defects, any strategy, which inserts technologies of information except any manager involvement, cannot be the holder of performance for the firm (Rockart et al. 1996).

### **2.2.1. The Determiners of Manager Competences**

The today's firms are being supposed to do to have competent managers in IT science, besides their business competence. Such competences allow to a firm to acquire, to unfold and to take advantage of its IT investments and to pursue the commercial alignment of its strategies as well as support of its activities (Sambamurthy and Zmud, 1994). Competence is treated in a different way, sometimes as an indicator of performance, sometimes as competence or trait of personality.

### ➤ **Performance as Determiner of Competence**

Performance is a concept used, often, as a substitute for competence; it indicates competence. This confusion is owed to the interchangeable use of both concepts (Bassellier et al. 2001). For Klemp G.O (1979), competence is a catalyst which provides means to ameliorate performances. In spite of the link between both concepts, other factors, others than competence, such as motivation, efforts and the conditions of support, can have an influence on performances (Schambach, 1996).

### ➤ **Competence as Competence**

The research of adequacy between the capacities of the users and requirements of job or task drives to the developments of competences, notably specific competences for a job or a given occupation (Willis, 1990). Marcolin et al. (1998) define the competence of the users « as the potential of the user to apply technology in all measures of possible to maximize the performances of the user for specific tasks » (Marcolin, 1998).

This approach rests task on an "adjustment" between an individual and to which he is appointed. This logic is recommended when a firm tries to engage somebody or tries to create a plan of efficient training for lower levels. At the upper hierarchical level, the roles of direction and management do not implicate out of necessity defined tasks, in the priority, what calls into question this approach of competence (Bassellier et al., 2001).

### ➤ **Competence as a Trait of Personality**

Competence is individual characteristics above all, it depends on the capacity of the individual to develop its own characteristics and to acquire news. Izard et al. (1993) defined competence as « generic knowledge, motives, traits, social roles or competence of a person linked to the upper professional performance ». In other words, competence consists of, besides irrationality and unpredictability of personal feelings, general or specialized knowledge, the physical and intellectual capacities, traits of personality, motivations and the pictures of one (Kanungo and Misra, 1992).

### ➤ **Competence as Knowledge**

Between definite and tacit knowledge, was appeared the clean competence to every individual, the first knowledge at the level of particular institutional context and the others express the personal effort of the individual to distinguish himself. In commercial domain, for instance, and considering the complicity of actual environment, it is necessary to have IT competences to counter the attention of short-sighted person on technical competences (Gartner Group, 1999). Competences are routine and are not necessarily directly linked to a specific task, but represent the capacity to face up changeable and complex environments (Kanungo and Misra, 1992) and in the capacity to transfer knowledge between tasks (Brown, 1994).

## **2.2.2. The emergence of IT managerial competences**

Nowadays, organizations need IT manager competences to get ready in their future (Gartner Group, 1999). It becomes, more and more, obvious that a « *firm cannot afford more illiterate leaders in information technology than of illiterate professionals in IT science* » (Keen, 1991). The change in the roles of IT exceeds the simple execution of a task with the aid of the catch of decisions. It requires to turn a particular attention in IT competences of the users, notably the managers. Authors identified certain dimensions of IT manager competences as follows:

- Be informed about the informational trumps and about opportunities of information (Vital, 1986);
- I understand the value and the potential of IT influence (Boynton, 1994);
- Know potential and borders of actual and future technologies of information and how competition uses technologies of information (Armstrong, 1999);
- Other studies created a broader network of knowledge, including commercial knowledge, which is essential to establish links with other units, to give a broader perspective and to take advantage of adequacy between IT science and organizational context. It consists of, for instance:
  - Knowledge of organizational context such as its environment, its strategy, its structure, its culture, its processes and her IT facilities (Silver et al. 1995).
  - Knowledge of « big picture » and IT activities (Brodie, 1997).

Other dimensions can broaden this notion in terms of acquisition, to implement and to support IT investments. It is a responsibility shared between the departments of the systems of information and the hierarchical responsible (Henderson, 1990; Rockart et al., 1996; Sambamurthy and Zmud, 1994). The managers of firms have the responsibility for to unfold the IT in an efficient and strategical way, taking the ownership of the IT plans to release from their domain of commercial responsibility (Sambamurthy, 1994), to develop a partnership with professionals of the IT and to take a leading role in this domain (Bassellier et al. 2001).

### **2.2.3. Piloting by Competences in the Digital Age**

IT manager competences are, closely, linked to IT competences of the employees at all levels (technical competences and business) and IT competence in management due to the different technical changes centred on IT competences (Autor et al.1998). The digitalization, augmented on the whole by organizations to institute an augmented self-government, suppleness and decision-makers in IT competence, is a supplementary benefit of their manager qualities.

Manager competences constitute capacities appropriated to combine with IT structures for a better taking over of the IT investments. The emergent manager competences are conditioned by another element imposed by the general implementation of the use of IT in the today's firms, and among which the acquisition and development constitute an explicative variable of the taking over of the value of the IT investments and, as a result, the performance to know IT manager competences.

Of what precedes, we note that the manager competence in IT is necessary to take advantage of the IT investments of firms. These investments are not in themselves source of a lasting competitive advantage. Clemons and Row (1991) have underlined that not substitutable and lasting advantages result from an application and from an innovative and competent use of IT to exploit the unique means of the innovative firm so that the rivals entirely do not take advantage from simulations (Tippins and Sohi, 2003).

## **3. Theoretical Framework**

The modelling of the manager competence of piloting of performance was the object of numerous tries throughout literature in the field. In the present study, we are going to move forward the most popular explicative models by introducing, at first the modelling of the general notion of competence (the tripartite model of individual competences of Andrej Bertoneclj (2010), and in the second time we shall focalize our analysis on IT manager competence (Andrej,2010).

### **3.1. Traditional Manager Competences of Piloting**

Piloting is determined by all actions and decisions taken by the managers with a view to reaching the targets of performance by being based on their competences. These last are determined by a range of mailmen, generate the performance of the responsible, notably personal qualities, motivations, experience and behaviour characteristics (Boyatzis, 1982). Three dimensions of manager competence kept as components of personal manager competences (or classics), to know cognitive, affective and conative competences (Bassellier et al., 2001).

These three dimensions from the system of value of an individual who indicates whole behaviour, whose acquisition and development are uninterrupted processes. In the tripartite model of individual competences, Andrej Bertoneclj (2010) differentiated between three categories of competences, to know cognitive competences, affective competences and conative competences. The first ones include knowledge and aptitude, the second regroup suppleness and emotional, while the third images the capacity of the individual to pilot actions towards objectives.

The cognitive dimension of manager competences is learnt, contrary to the affective dimension which can be acquired and developed across social and professional experiences, while the conative dimension is innate and can only be favoured (Kovac and Bertoneclj, 2008).

The cognitive element depends, in general, on intellectual capacities and on the intelligence of the individuals. Rogoff (1990) and Winterton et al. (2006) identified, besides cognitive broadly acknowledged competences, specialized cognitive competences which are conditions prior to the upper performance in a given activity that they are defined in a narrow way (resolution of differential equations of the second order, for example) or open sea (analytical competence, for example). The other competence is the disease which is closely followed by the conation due to the fact that both elements are the most popular and, often, named in debates on the stocks of an individual. Disease indicates different personal characteristics (traits of the personality), as biological determiners (such as constitution), motivations (such as the motive of success), attitudes and made general beliefs (such as made general auto-effectiveness) (Bertoneclj, 2010). The third dimension of the tripartite model of (Bertoneclj, 2010a) is the conation as proactive aspect of the behaviour of the managers (in contrast with a reactive or habitual behaviour) (Kane, 1985; Mischel, 1996). What counts in a process of piloting, it is how will a responsible or a manager act? Will he not act? Where does it get ready to act? (Bertoneclj, 2010.) The conation is an emergent concept which characterizes action as decisive quality of business competence of a manager and that is orientated to a purpose or an element of motivation (Baumeister et al.1998; Emmons, 1986). The conation is represented as a direction volunteer of action towards a purpose. As such, conative competence is an important party of the tripartite dichotomy of competences which is not taught (Bertoneclj, 2010). Although the cognitive and affective aspects are indications of performance, they do not have effects, necessarily, on action; what counts, it is the action which to identify the behaviour of a person.

### **3.2. The IT Manager Competences of Piloting**

With the advent of information technologies, manager competences find themselves enlarged to include an IT element. The responsible and the managers are required to have, besides competences being recovering from their business, from knowledge in information technologies.

The modelling of IT manager competences, brought to light two elements (that we kept as elements) of variable manager competence, a definite and another one tacit (Polanyi, 1967). The explicit element reveals the definite knowledge which can be, apparently, transmitted by using a systematic language. In other words, definite IT knowledge is those who can be taught,



read and explained. Boyatzis (1982) define them as a specialized knowledge, a group of facts and of appropriate and useful concepts for a particular work. The tacit element indicates IT knowledge which allows the responsible and managers to announce with the specialists in IT science (Bassellier et al., 2001). Andrej (2010) identified the main elements and dimensions of the IT competence of a manager. They involve, of definite knowledge in IT (applications, development of systems, the management of IT and the access to knowledge IT) and tacit knowledge in IT (experience with IT: personal usage of IT, credit of plans IT; and cognition under form, of view process and of vision on the role of IT).

Both elements are supplementary and closely linked: the one cannot exist without another one, as confirm it Cohen and Levinthal (1990), competence refers « *not only in the acquisition or in the assimilation of information by an organization, but also in its capacity to exploit them* ».

After all is said and done, the comprehension of the IT competence of the managers is a group of explicit and tacit knowledge which a manager has in information technology allowing him to exercise a leading role in IT science in his domain of activity (Bassellier et al., 2001). A competent manager in IT science is the one who has IT knowledge at the same time although his main domain of competence can be in a domain other than IT science.

Other study also tries to identify other traits of manager IT competence within firms, in most cases those of Bassellier et al. (2001) who represent, apparently, the main elements of IT manager competence in terms of tacit and explicit knowledge, introduced in both following table:

**Table 1 : Components of Explicit IT Knowledge**

<b>Components</b>	<b>Specific elements</b>	<b>Example elements</b>
<b>Technology</b>	Current and emerging technologies	Knowledge of how technologies such as personal ITs, client/server computing, LAN, and multimedia can be valuable to the organization
	Current assets	Knowledge of the existing technological portfolio in the field of activity
	Use of IT by competitors Knowledge	Supporting similar business areas of how competitors use IT
<b>Applications</b>	Current and emerging applications	Knowledge of how applications such as email, intranet and groupware can benefit the organization
	Current assets	Knowledge of the current application portfolio in the organization
<b>Development System</b>	Development methodologies	Knowledge of different development methodologies such as traditional system development lifecycles, end-user development, prototyping and access service providers can be valuable to the organization
	Project management practices	Knowledge of how project management practices such as staffing, planning and budgeting benefit the organization
<b>IT management</b>	IT planning and commercial deployment	Knowledge of IT strategies, policies and vision statements used in the organization
	Allocation of resources	Knowledge of financial and human resource allocation for IT in the organization
<b>Access to IT knowledge</b>	Mapping of computerized people	Knowledge of IT people within or outside the organization who can be contacted when IT information is needed
	Mapping secondary sources of IT knowledge	Knowledge of secondary sources of IT knowledge (e.g. Internet, journals, conferences...)

Source :(Bassellier et al. 2001)

**Table 2 : Components of Tacit IT Knowledge**

Components	Specific elements	Example elements
<b>Experience</b>	Personal use	Using office software for personal purposes
	IT s	Productivity
<b>Cognition</b>	IT project experience	Participation and/or leadership in the following activities: <ul style="list-style-type: none"> <li>• Launch of new IT projects</li> <li>• Defining the cost and benefits of a specific IT project</li> <li>• IT project management</li> <li>• Development work within IT projects</li> <li>• Implementation of IT projects</li> </ul>
	IT management	Participation and/or leadership in: <ul style="list-style-type: none"> <li>• Creating a clear IT vision of how IT contributes to business value and strategy</li> <li>• Development of an IT strategy</li> <li>• Creation of IT policies within the company</li> <li>• Definition of IT budgets</li> </ul>

*Source :Bassellier et al. (2001)*

#### 4. Model Worked Out by Research and Methodology

The theoretical framework introduced before allowing us of work out, firstly, a theoretical research model, and to define, later, the methodology as well as ancillary research questions as we developed by basing us on our theoretical knowledge for a future empirical investigation. The worked out model represents relations between variables constituting the determiners of manager competences and dependent variable, to know the piloting of performance.

##### 4.1.Theoretical Model of Research

The theoretical framework introduced before constituted us a foundation on which we chose the independent variables of the variable of piloting of performance. It is about personal manager competence and manager competence in IT. The first variable includes knowledge and classical competences of one to eat except the requirements of the digitalization. While the manager competence in IT is kept as variable caused by movements of digitalization of the today's markets. In what follows, we are going to identify, firstly, the components of theoretical variables kept, to simplify relations later likely to be appeared between independent and dependent variables. The table following illustrated the variables kept with their components:

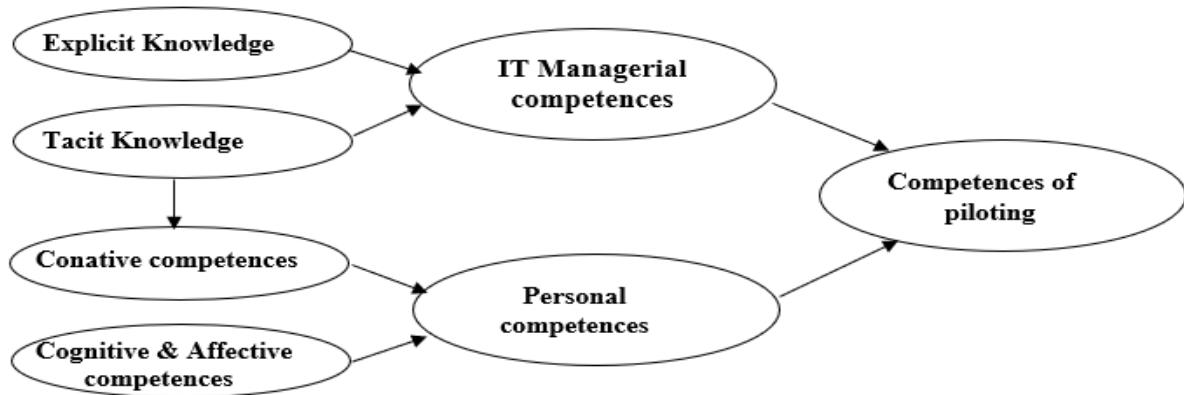
**Table 3: Constructed theoretically of research**

Theoretical constructs	Components	Source
<b>IT Managerial competences</b>	Explicit Knowledge	Andrej (2010) (Bassellier et al., 2001). Cohen et Levinthal (1990)
	Tacit Knowledge	
<b>Personal Competences</b>	Cognitive competences	Andrej Bertoncej (2010) ; Kovac et Bertoncej, 2008) ; Rogoff (1990) ; Winterton et al. (2006)
	Affective competences	
	Conative competences	
<b>Competences of piloting of performance</b>	IT Managerial competences	(Lorino, 2003) ; (Tippins and Sohi, 2003) ; (Rockart et al. 1996).
	Personal competences	

*Source: worked out by the author*

Of what precedes, we can simplify relations between variables mobilized in the present problems as follows:

*Figure 4: Theoretical model of research*



*Source: worked out by the author*

In this model, personal competence regroups classical competences of a manager, to know that asked in a not digitized environment. It is cognitive, affective and conative competences (Bassellier et al., 2001). Also, manager competences in IT image IT knowledge asked at the managers in a context of digitized job. These last regroup implicit and explicit knowledge (Bassellier et al., 2001).

#### **4.2. Methodological Proposal for Future Empirical Investigation**

On the basis of the aforementioned theoretical results of the study, we are going to undertake the presentation of the methodology to be adopted in a future empirical investigation. In this frame, we are going to opt for qualitative research founded on the methodology of studies of numerous cases. This choice of qualitative approach registers as part of our epistemology positioning regarding the paradigm post positivism as well as with the multidimensional character of the present problems. According to Scotland (2012), post positivism is a paradigm which calls into question the neutrality of knowledge to the advantage of the social building of any knowledge. It is about a subjective cogitation, guaranteeing to the researchers the possibility of thinking on a subject that they consider engaging (Dupuis, 1999). One asks for this subjectivity in all research concerning the analysis of behaviours, as that of the present which studied the behaviour of the users of the IT and that asks for a margin of cogitation and judgement (Dupuis, 1999) translating the subjectivity recommended by post positivist thought as well as our abductive reasoning.

In this frame, we developed, on the basis of knowledge of theoretical study, questions of following ancillary research:

- What correlations between personal manager competences and manager competences in IT?
- What correlations between manager competences in IT and piloting of performance in the digital age?
- What are the determiners of the manager competence of piloting of performance in the digital age?

These questions, we shall develop for a future empirical investigation, a guide of semi-directive interview as a technique of collection of data and we shall use NVIVO software, the most popular, for the treatment and the analysis of data to be collected.

## 5. Conclusion

The role which occupies the managers in the process of piloting of performance made their competences a subject of debate in the literature of the sciences of management. This debate which leads to numerous modelling of the competence of the managers was speeded up with the advent of IT and the disturbance which they cause in markets in major digital terms of transformation. This last imposes the enlargement of the classical dimensions of the performance of the managers, so that she is to include another IT dimension (Ruth, 2006). In this frame, we initiated our study by a conceptual analysis to surround well all aspects of our themes as well as an analysis of theories and explicative models in the field.

The theoretical analysis allowed us later to take out again the theoretical variables explaining the impact of the digitalization on manager competences of piloting of performance. These variables are afterwards the object of a simplification representing relations between them in a model worked out by research. This model constituted us a foundation for started a future qualitative empirical investigation founded on the method of studies of numerous cases and on semi-directive discussions as the technique of having a fight of data.

Finally, in spite of the border of the absence of studies in the Moroccan context of manager competence facing the challenges of the digitalization, this study brought to the researchers and Moroccan practitioners more elucidation on the notion of manager competence so on these structures after the general implementation of the use of IT. Likewise, it opens numerous research perspectives such as the exam of the model worked out by research on a population other than the managers as well as the realization of a longitudinal study of the evolution of manager competences in the digital age.

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