Economics Bulletin

Volume 38, Issue 4

The contribution of job satisfaction, organizational climate and employee commitment on management innovation in Tunisian SMEs: The effect of the post-revolution environment

Nejib Ben moussa
FSEG Tunis , University of Tunis Manar

Abstract

Innovation has become today a key factor in business success or even sustainability. Previous research on innovation have shown that the introduction of management innovation depends on several determinants including organizational climate, job satisfaction, and employee commitment. This study aims to examine the contribution of each of these determinants on management innovation of Tunisian SMEs in a post-revolution context. For this reason, we conduct a survey of 78 SMEs operating in different sectors of the Tunisian economy by using the structural equations method and the PLS approach. Our findings show that before the revolution the relationship between innovation management and employee commitment is highly significant. Employee commitment depends only on job satisfaction. After the revolution, the introduction of innovation management is largely conditioned by employee commitment, which in turn depends on organizational environment and job satisfaction. The post-revolution environment has introduced the organizational environment as a predictor of employee commitment and management innovation.

Citation: Nejib Ben moussa, (2018) "The contribution of job satisfaction, organizational climate and employee commitment on management innovation in Tunisian SMEs: The effect of the post-revolution environment", *Economics Bulletin*, Volume 38, Issue 4, pages 2167-2183
Contact: Nejib Ben moussa - nejibbenmoussa1503@gmail.com.
Submitted: September 01, 2018. **Published:** December 02, 2018.

1. Introduction

In addition to the uncertainty characterizing the international business environment, as competition is growing fierce, Tunisian SMEs face a difficult and a fragile environment after the January 14, 2011 revolution. An environment characterized by unstable political, economic, and social upheavals. Similarly, these SMEs had to innovate to survive and remain competitive (Rhee & Lee, 2010) on both domestic and international markets. The environment in which Tunisian SMEs operate requires, therefore, a double effort to overcome domestic challenges and to face a very aggressive foreign competition.

This environment is known by a strong uncertainty around which the company evolves very fast (Pondeville et al., 2013). This is a real challenge for all businesses regardless of size requiring them to make changes in view of adapting to a new context. Adaptation is often achieved through the creation of new products / services or even new working ways (Brown and Eisenhardt, 1995). Innovation is a solution for businesses to cope with an uncertain and ever-changing environment (Park and Lee, 2010). Innovation seems to be, therefore, a survival tool for Tunisian companies, since they cannot continue to operate with the same conventional tools as before the revolution. Previous research has focused on the study of technological innovation (Rubalcaba, & Hipp, 2013). In recent years, managerial innovation has begun to attract the attention of researchers (Volberda et al., 2013). It is therefore interesting to understand managerial innovation and identify its determinants (Volberda et al., 2013). Volberda et al. (2013) and Wu (2010) emphasized that improving performance and creating competitive advantage need continuous innovation in operational and organizational processes. Success of managerial innovation depends on the involvement of all the company's partners and mainly the employees (Damanpour and Evan, 1984; Fernandez and Moldogaziev, 2011). As the environment changes, employee commitment becomes necessary to ensure the smooth transition to a new context (Latan et al.,2018). Employee engagement is therefore a prerequisite for innovation in general and managerial innovation, in particular, to ultimately improve the company's performance and competitiveness (Soto -Acosta et al., 2016; Gruman and Saks, 2011).

It is important to note that job satisfaction has often played a significant role in determining employee engagement (Rich et al., 2010; Sieger et al., 2011; Lannoo and Verhofstadt, 2016; Chinomona, et al. 2017).
Employee commitment also depends on the organizational climate (Clercq and Rius, 2007). In fact, it is in a favorable environment that new ideas that create firm value develop. This organizational climate should be able to guide employees' efforts towards meeting their expectations and achieving the company's goals at the same time (Bolivar-Ramos et al., 2012). Employee commitment develops in a context where employees feel satisified with the assigned tasks and where the employee-employer relationship is good (Delhey, 2010; Belias and Koustelios, 2014 ; Inanlou and Ahn, (2017). Drechsler & Natter (2012) pointed out that environmental uncertainty, the main ordeal of a post-revolution environment, pushes the company towards adopting innovative behavior in order to remain competitive on the market both the domestic and international markets.

To the best of our knowledge, none of the existing studies have examined the relationship of all these constructs in a post- revolutionary environment like Tunisia's. Our main research question is as such: *in a post-revolution context, how do employee commitment, job satisfaction and organizational climate affect management innovation of Tunisian SMEs*? Our main objective here is to determine, first, the effect of employee commitment on management innovation. Then, we examine the importance of the determinants of employee

commitment, namely organizational climate and job satisfaction. Finally, we examine the effect of the post-revolution environment on all these identified relationships.

The remainder of this paper is organized as follows: the second section reviews the literature where we present an overview of various constructs examined by this study. Then, the third one presents the methodology used to survey Tunisian SMEs. The fourth section presents the main results. The last section discusses the results and concludes the paper.

2. Literature review and hypotheses

Sie et al. (2007) distinguishes three types of innovation: organizational, informational and technological. Innovation has often been studied from the technical aspect. Organizational innovation affects the ways of organizing work (TQM, Six Sigma ...). Informational innovation relates to changes that affect the generation of the necessary information to employees for decision making (ERP ...). Technological innovation is any technical innovation that directly affects firm competitiveness. The literature on management innovation is fairly recent (Birkinshaw, Hamel, and Mol, 2008; Hamel, 2009; Hamel, 2006). Several studies have shown that management innovation is behind improved business performance and a competitive advantage creation (Volberda et al 2013; Wu, 2010). The studies that examined the determinants of management innovation are rare (Vaccaro et al., 2012). Management Innovation depends on both internal variables (human capital, structure,) and external variables related to the search for new knowledge (Mol and Birkinshaw, 2009). In our study, we focus only on three internal variables, which are: employee commitment, job satisfaction and organizational climate.

2.1.Management innovation and employee commitment

Birkinshaw et al. (2008), Volberda et al. (2013) define management innovation as the firm's introduction and adoption of new management processes, practices, structures or techniques to create high competitive value. Management innovation is, therefore, any change introduced in the company that aims to improve its internal processes. It is different from innovation of products or services that are oriented towards satisfying external needs (Walker et al., 2010). Employee commitment to work is defined as a positive psychological state that illustrates their high satisfaction and involvement in the organization's projects (Schaufeli, Salanova, González-Romá, & Bakker, 2002). It measures employees' degree of attachment to the company and the level of their involvement to solve business problems.

Committed employees are those who consider any change in the business environment as an opportunity that needs to be exploited to better solve problems. They therefore are free to act (Fernandez and Moldogaziev, 2011). It is for this reason that managers must share with their personnel the necessary information about how the company functions as well as what strategic moves need to be taken. Damanpour and Evan (1984) believe that the success of innovation in a company requires the continued support of all stakeholders. Innovation depends on the company's receptivity and propensity to adopt new ideas (Popa et al., 2017; Rubera and Kirca, 2012). The ability to introduce management innovation strongly relates to employee commitment (Fernandez and Moldogaziev, 2011; Park and Rainey, 2007; Wagner and Harter, 2006; Towers ; 2003: 2007). Employees' attachment to their company encourages seeking improved performance. They try to adopt and implement new technologies and practices to improve firm competitiveness. Unexpected changes require a quick adaptation and consequently a commitment of personnel to succeed in the new situation (Xu et al., 2008). The ability of the company and especially commitment of its staff to overcome difficulties and to accept managerial innovation is essential for success. Managerial innovation is more likely to

succeed when company staff work in a supportive organizational climate that encourages creativity (Martín-de Castro et al., 2013). This is Menzel et al's (2007) innovation culture.

Several previous researches have shown that staff commitment is likely to encourage them to innovate and look for solutions to improve the functioning of the company (Soto-Acosta et al., 2016, Kmieciak et al., 2012). This climate offers the company the possibility to be more flexible to support collaboration and exchange between the different members of the organization (Collins and Smith, 2006, Kmieciak et al., 2012). Indeed, delegating power and encouraging job autonomy create a favorable climate for innovation and therefore staff commitment to new projects (Prakash and Gupta, 2008). In addition, some researchers such as Gruman, Saks, (2011) have shown that employee commitment positively relates to improving the company's competitiveness and to business performance through improved efficiency, productivity and a better relationship with customers. Hence, we formulate the following hypothesis:

Hypothesis 1: *The more employees are committed to the organization, the higher the likelihood of introducing management innovation.*

2.2. Employee commitment and job satisfaction

According to Pool and Pool (2007) job satisfaction reflects a feeling of pleasure experienced by an employee towards the work they do. Employees' job satisfaction results from his or her emotional appreciation of the work they do in the company (Fritzsche & Parrish, 2005). It expresses employee's degree of attachment to their work (Spector, 2008, Locke, 1976), given their personal expectations (Sempane et al., 2002). Job satisfaction is an important variable in the development of employee commitment and especially in improving motivation (Bakker et al., 2008) through attachment and identification (Bargagliotti, 2012). Rich et al (2010) emphasized that employee commitment significantly improves job satisfaction. Gould-Williams and Davies (2005) have shown that business success, performance and competitiveness strongly relate to job satisfaction. Hancock et al. (2013), Lannoo and Verhofstadt (2016) have shown that job satisfaction positively correlates with work performance and therefore influences organizational performance. In fact, an employee who is satisfied with his/her work is more motivated and is more committed to the company's projects since he/she deploys additional efforts than an unsatisfied employee (Sánchez-Beaskoetxea and García, 2015). So, business leaders need to be aware that the success of any managerial innovation effort is largely conditioned by employee commitment (Sirková, Ali Taha, Ferencová, 2014).

Paik et al., (2007), Yi-Jen (2007) and Jain et al. (2007), among others, showed that the relationship between job satisfaction and employee commitment is positive. This means that a satisfied employee at work is strongly committed to the company's projects. Sieger et al. (2011) showed that employees' commitment degree to their organizations depends on job satisfaction, which in turn depends on the organizational climate. Job satisfaction greatly contributes to employees' commitment to their organizations. The relationship is positive between these two variables. Therefore, the following hypothesis is formulated:

Hypothesis 2: *The more employees are satisfied, the more they are committed to changes within the organization.*

2.3. Employee commitment and organizational climate

Anderson and West (1998) define a creative organizational climate as collective perceptions shared by members of an organization regarding practices and routines. A creative organizational climate is often regarded as a phenomenon that largely influences the company's innovation capacity (Ben Moussa, 2014). Organizational climate is a very important factor to produce and implement any new idea. Chang (2011), Bolivar-Ramos et al. (2012) show that creativity positively relates to business innovation. Pillai and Williams (2004) consider that employee commitment reflects the extent to which employees' objectives and those of the company are aligned. Employee commitment requires a strong sense of identification with the organization in terms of shared objectives and values. In other words employee commitment expresses employees' involvement to reaching organizational goals. Committed employees deploy additional efforts (Organ and Ryan, 1995) to improve product quality and organizational practices and thus reach business goals. Similarly, Morrison (1994) believes that the most committed employees adopt an innovative organizational behavior based on a sense of belonging. Indeed, the more employees are committed, the more they get involved to solving business problems. The organizational climate is closely linked to employee commitment. Generally, employees are highly committed in an environment that values their development, i.e. an environment that allows them to evolve and progress in the pursuit of their objectives.

An organizational climate conducive to innovation makes employees emotionally positive and improves their satisfaction level (Belias and Koustelios, 2014, Rasulzada & Dackert, 2009). On the other hand, a climate fraught with numerous conflicts between members of the organization would only increase their frustration and consequently reduces their satisfaction (Janssen et al., 2004). Indeed an organizational climate expressed in terms of good relations between employees and autonomy of individuals positively affects satisfaction and creativity at work and consequently increases innovation potential (Huhtala and Parzefall 2007, Delhey 2010).). The more the organizational climate is favorable, the stronger job satisfaction and employee commitment (Clercq and Rius, 2007, Ruth, 1992; Putti and Kheun 1986). Hence, we propose the following hypothesis:

Hypothesis 3: *The more organizational climate is favorable to innovation, the higher employee commitment is.*

2.4. The effect of the revolution environment

In general, the company's environment continuously changes and is thus unpredictable (Lawrence and Lorsch, 1967; Duncan, 1972). Companies are currently operating in an environment where change is very fast (Pondeville et al., 2013). Since the 2011 revolution, Tunisian companies have been facing a totally uncertain and unpredictable environment. Change is very fast and the situation is very unstable at the internal and external levels of the organization. Companies that operate in this environment face significant risks. The company's efforts to cope with an uncertain environment switch from defensive actions to proactive initiatives. Generally, in an uncertain environment, managers rely on their intuition to better manage their businesses (Huchzermeier and Loch, 2001).

In an uncertain environment, as post revolution, managers are called to manage a multidimensional environment and cope with its different dimensions separately (Huang et al., 2014). Such an environment is characterized by the difficulty of taking a decision in the absence of sufficient information and especially characterized by the rapid pace of change (Lawrence and Lorsch, 1967). Whenever corporate decisions remain dependent on the decision of the

other environmental actors (Levinthal, 1997, Pettigrew et al., 2003), knowing the environment becomes imperfect (Bowman and Hurry, 1993; Siggelkow and Rivkin, 2005).

Today, innovation is an effective solution for the company to defend itself and take advantage over its competitors (Park and Lee, 2010). This requires innovative behavior of the company and employee commitment (Drechsler & Natter, 2012). First, researchers were interested in studying the effect of the environment on technological innovations (Rubalcaba, & Hipp, 2013). Verdu et al. (2005) showed that an uncertain environment affects technological innovation strategies. With the emergence of managerial innovation, in recent years, studies started to propose it as a solution to overcome the difficulties caused by changes in the business environment (Birkinshaw, Hamel, and Mol, 2008; Hamel 2009; Hamel, 2006; Volberda et al 2013; Wu, 2010; Volberda et al., 2013). The company is currently forced to innovate in order to survive and face fierce competition (Volberda et al., 2013). As a result, managerial innovation can be a solution to reduce risk and cope with rapid changes in the environment. Making changes in the processes and working methods is a needed by all companies. In such an environment, leaders of the organizations try to follow the changes and why not create new changes (Miles and Snow, 1978; Merschmann and Thonemann, 2011).

The environment, whatever uncertain it is, certainly contains threats but also opportunities that should be seized. It is with involved employees that the company is better able to take advantage of these new opportunities. It seems that in this post-revolutionary context, managerial innovation is determined by several factors including employee commitment, job satisfaction and organizational climate. The change in the environment after the revolution thus moderates all the relations of our research model. Hence, we propose the following hypothesis:

Hypothesis 4: *The revolution environment* moderates*:*

H4a: The relationship between employee commitment and management innovation.

H4b: The relationship between employee commitment and organizational climate..

H4c: The relationship between employee commitment and job satisfaction.

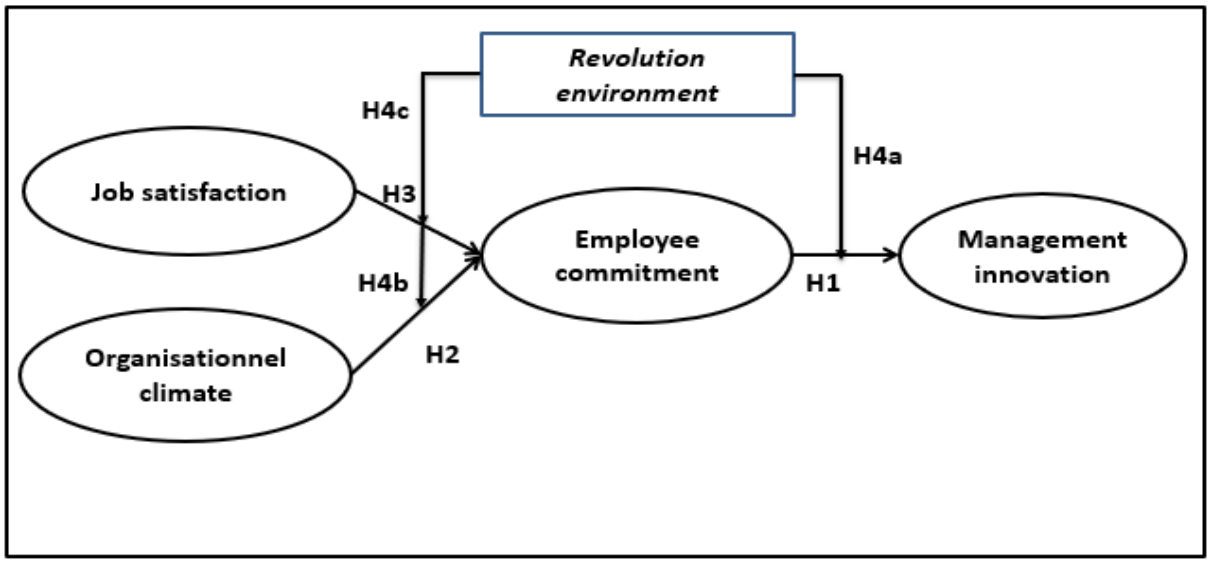

Figure 1. The research model.

3. Methodology

To test our research hypotheses, we conduct a survey of 200 SMEs operating in several sectors of the Tunisian economy. Companies must have at least eight years of activity. A questionnaire was sent to the CEOs of these companies by mail. Some of them delegated the task of answering our questionnaire to another manager of the company (Table 1). Only 78 correctly completed questionnaires were returned. The response rate is, thus, of the order of 39%. Then, interviews of about fifteen minutes were carried out with the respondents in order to have more information.

To operationalize the constructs of our model, we adopted measures used and validated by previous research. All items representing the different constructs were evaluated on a 5-point Likert scale from "strongly agree" (1) to "strongly disagree" (5). We measured the construct "management innovation" with 4 items inspired by the work-of Nieves and Segarra Cipres (2015). The construct of "organizational climate" was measured by three items taken from Scott and Bruce (1994). Employee commitment was measured by three items, adopted from Yeh (2014). Similarly, the construct of "job satisfaction" was measured by three items taken from Yeh (2014), Zhou et al. (2008), Mayhew et al. (2007) and Van Dyne and Pierce (2004). To understand the effect of the revolution environment, each respondent is asked to evaluate the importance of all variables in our research model before and after the revolution. The aim is to compare the determinants of management innovation in two different situations: before and after the revolution. This will allow us to determine the gap between the two situations and consequently to appreciate the effect of the post-revolution environment.

Table 1 : Characteristics of the sample

Characteristics		**Frequency**	**Percentage**
Industry type	Food industry	23	29,49%
	Ceramic and glass building materials industries	12	15,38%
	Mechanical and metallurgical industries	9	11,54%
	Electrical, electronic and appliance industries	11	14,10%
	Chemical industries	15	19,23%
	Textile and clothing industries	8	10,26%
	Total	78	100%
Respondent type	CEO, owner	17	21,79%
	Finance manager	33	42,31%
	Sales manager	15	19,23%
	Manufacturing manager	13	16,67%
	Total	78	100%

Given the relatively small sample size, we have chosen the structural equations method, its PLS component in particular, to test our research hypotheses (Gefen et al., 2000). Although several software packages are available to test the relationship assumed by our model, we opted for the smartPLS 3.2.7 software (Ringle et al., 2005) because of its simplicity and performance.

4. The Results

Analysis of the results is two-fold. The first estimates the measurement model and the second the structural model.

4.1. The measurement model

According to Hair (2013), this step consists of checking convergent and discriminant validity. The results of this stage, reported in Tables 2 and 3, indicate that convergent validity estimates, namely composite reliability indices (composite reliability: CR), and Cronbach's alpha, exceed the threshold (0.7) recommended by Straub (1989). It should be noted that Gronbach's alpha of job satisfaction, in the model before the revolution, is just limited (0.542), but still remains greater than 0.5.Which means that its reliability is always acceptable.

Table 2 : Convergent validity criteria (before revolution).

	AVE	**Composite Reliability**	**Cronbachs Alpha**
Employee commitment	0,676	0,862	0,758
Job satisfaction	0,512	0,758	0,542
Organizational Climate	0,627	0,898	0,829
Management innovation	0,748	0,870	0,804

Fornell and Larker's (1981) use factor loadings and cross factor loadings and the Average Variance Extracted (AVE) to measure convergent validity. The results in Tables 4 and 5 show that the factor loadings of all the items are significant and over the required threshold (0.7). AVE calculated for all constructs exceeds the required threshold of 0.5 (Table 1 and 2). Convergent validity is checked.

Table 3 : Convergent validity criteria (after revolution).

	AVE	**Composite Reliability**	**Cronbachs Alpha**
Employee commitment	0,654	0,850	0,736
Job satisfaction	0,678	0,863	0,761
Organizational Climate	0,782	0,915	0,861
Management innovation	0,633	0,873	0,805

Discriminant validity is checked by calculating the square root of the AVE for each construct (Fornell and Larker 1981). Tables 6 and 7 show that the square root of the AVE of each construct exceeds inter-item correlations. The discriminant validity of our model is checked as well. Since internal, convergent and discriminant validity are checked, we can conclude to the satisfactory psychometric quality of our models.

Table 4 : Factor loadings and factor crossed (before revolution).

	Organizational Climate	**Employee commitment**	**Management innovation**	**Job satisfaction**
OC1	0,917			
OC2	0,781			
OC3	0,890			
EC1		0,882		
EC2		0,827		
EC3		0,753		
MI1			0,809	
MI2			0,831	
MI3			0,759	
MI4			0,766	
JS1				0,773
JS2				0,718
JS3				0,650

Table 5 : Factor loadings and factor crossed (after revolution).

	Organizational Climate	**Employee commitment**	**Management innovation**	**Job satisfaction**
OC1	0,848			
OC2	0,843			
OC3	0,770			
EC1		0,860		
EC2		0,858		
EC3		0,829		
MI1			0,796	
MI2			0,862	
MI3			0,754	
MI4			0,762	
JS1				0,737
JS2				0,842
JS3				0,874

Table 6 : Correlations between constructs and discriminant validity (before revolution).

	Employee commitment	**Job satisfaction**	**Management innovation**	**Organizational Climate**
Employee commitment	**0.822**			
Job satisfaction	0,705	**0,715**		
Organizational Climate	0,617	0,694	**0,865**	
Management innovation	0,719	0,619	0,623	**0,792**

Table 7 : Correlations between constructs and discriminant validity (after revolution).

	Employee commitment	**Job satisfaction**	**Management innovation**	**Organizational Climate**
Employee commitment	**0.809**			
Job satisfaction	0,753	**0,823**		
Organizational Climate	0,760	0,775	**0,796**	
Management innovation	0,761	0,673	0,717	**0,884**

4.2. The structural model

Analysis of the structural model is done in two steps: one consists at testing the meaning of the various relationships between the constructs of our model and another to study the extent and intensity of these relationships. The results shown in Table 8 and Table 9 indicate that our model is cut into two models that will be analyzed according to the three criteria of R^2 coefficient, standardized correlation coefficients (path - coefficient) and p-values.

4.2.1. The model “before the revolution”

The results of table 8 show that all relationships are significant (p-value = 0,000 ≤ 5%) except that between organizational climate and employee commitment (p-value = 0,098 > 5%). We therefore reject H2 and retain H1 and H3.

Similarly, these results show a strong relationship between management innovation and employee commitment ($R^2 = 0.687$, $\beta = 0.829$, $p = 0{,}000$). However, this last variable depends only on the job satisfaction ($R^2 = 0.529$, $\beta = 0.534$, $p = 0{,}000$). The organizational climate variable plays no role in determining employee commitment and therefore management innovation ($R^2 = 0.529$, $\beta = 0.246$, $p = 0{,}098$).

Table 8. Structural model constructs (before revolution).

Hypotheses		R^2	β	t-student	p- value	Support
H1	EC ⟶ MI	0,687	0.829	9,996	0,000*	YES
H2	OC ⟶ EC	0,529	0.246	1,660	0,098	NO
H3	JS ⟶ EC		0.534	3,757	0,000*	YES

*p≤0,001

EC : Employee commitment, MI : Management innovation, OC : Organizational climate, JS : Job satisfaction

4. 2.2. The model "post- revolution"

The results in Table 9 show that all the hypotheses are validated (p-value ≤ 5%). H4a, H4b and H4c are therefore retained.

In fact, these results show a strong relationship between management innovation and employee commitment ($R^2 = 0.740$, $\beta = 0.860$, $p = 0.000$). Similarly, this last variable depends both on job satisfaction ($R^2 = 0.791$, $\beta = 0.623$, $p = 0.000$) and organizational climate ($R^2 = 0.791$, $\beta = 0.341$, $p = 0.001$).

It should be noted that in the post-revolution context, the relationship between management innovation and employee commitment has improved significantly compared to the model before the revolution ($\Delta R^2 = 0.053$, $\Delta\beta = 0.031$, $p = 0.000$). Similarly, job satisfaction and employee commitment are strongly related ($\Delta R^2 = 0.262$, $\Delta\beta = 0.089$, $p = 0.000$). Unlike the model before the revolution, the relationship between organizational climate and employee commitment became quite strong and significant ($\Delta R^2 = 0.262$, $\Delta\beta = 0.095$, $p = 0.001$). The post-revolution environment then moderates all the relationships of our research model.

Table 9. Structural model constructs (after revolution).

Hypotheses		R^2	β	t-student	p- value	Support
H4a	EC ⟶ MI	0,740	0.860	24,683	0,000*	YES
H4b	OC ⟶ EC	0,791	0.341	3,328	0,001	YES
H4c	JS ⟶ EC		0.623	5,901	0,000*	YES

*p≤0,001

EC : Employee commitment, MI : Management innovation, OC : Organizational climate, JS : Job satisfaction

It is clear that in the post-revolution model all indicators have improved compared to the before-revolution model. It appears from these results that in a post-revolution environment management innovation depends on all variables at once. This means that it depends on the employee commitment which itself depends on job satisfaction and organizational climate.

5 . Discussion and conclusion

In this paper, we tried to study the impact of employee commitment, organizational climate and job satisfaction on Tunisian SMEs' innovation management in a post revolutionary context. We also pointed to the role of organizational climate and job satisfaction in forming employee commitment. Our results of a survey of 78 SMEs operating in several sectors of the Tunisian economy have revealed that:

(i) **Before the revolution**: the environment during this period is characterized by political, economic and social stability. The results showed that managerial innovation was determined by the commitment of employees. In fact, the existence of a positive and significant relationship between these two variables has been confirmed by several previous studies (Alshekaili and Boerhannoeddin (2011), Fernandez and Moldogazie (2011), Park and Rainey (2007), Lee Cayer and Ltan (2006)). Similarly, according to our theoretical conclusions (Hulya and Gunsel (2013), Anderson and Wets (1998), Scott and Bruce (1994), Sieger et al (2011), Paik et al., (2007)), we have validated the importance of job satisfaction to explain employee involvement. Unlike the literature, organizational climate does not directly relate to employee commitment. It is clear from our results that employee commitment plays an important role in the introduction of management innovation which in turn is positively related to job satisfaction;

(ii) **After the revolution**: the environment during this period is characterized by political, economic and social instability. Managerial innovation is largely determined by employee involvement, which itself is dependent on job satisfaction and organizational climate. These results confirm our theoretical conclusions (Fernandez and Moldogaziev (2011); Park and Rainey (2007); Lee Cayer and Ltan (2006); Sieger et al (2011); Paik et al., (2007)). It is clear from these results that employee commitment plays a greater role in the introduction of management innovation after the revolution. This is explained by the fact that before the revolution an anti-democratic leadership style was the most used by the leaders to implement a managerial innovation. After the revolution leaders can no longer run their businesses in the same way. They are rather called to create an organizational climate favorable to innovation. So, it is unacceptable to have a high employee commitment without thinking of their satisfaction, and this is achieved by ensuring a favorable organizational climate for them. Indeed, in a post-revolution context, managers should create a climate for management innovation to meet employees' needs and increase their commitment to their businesses. It is not enough to have satisfied employees to develop the company's innovative capacity. Managers should ensure that employees are strongly committed to reach the company's objectives. A favorable organizational climate is generally known by managers' support who have to tolerate errors and encourage creative employees. It is also known by good coordination between employees of the different departments of the company.

The interest of this study is twofold. First, we focus on managers of companies who face everyday problems related to organizational climate and personnel motivation. In the same way, this study addresses the research community as it tries to establish a link between different concepts which have not been put together before. Second, our study has also an empirical contribution, since we try to test the different relationships of our conceptual model through a survey of a sample of 78 Tunisian SMEs.

The results of our survey showed that the post-revolution environment, characterized by uncertainty and rapid change, requires companies to be more cautious than before. It also requires companies to adopt new processes and new working methods to ensure their survival (Slusarczyk, Kot, 2012).

In a post-revolutionary environment, managers had to face many difficulties and obstacles that may reduce or hinder the development of the company's innovation capacity (Ben Moussa and Zaiem, 2013). Managers should be aware that having no employee commitment and a favorable organizational climate might be an additional barrier that would prevent the development of management innovation, which depends on the company's ability to innovate, to adopt new changes and especially to implement them. The effort of the company is threefold:

(i) creating an innovation-enabling environment (funding, motivation, moral ...) to reduce resistance to change;

(ii) implement new changes; and evaluate actions (monitoring, comparing with old techniques ...).

It is true that the environment of SMEs, after the revolution of January 14, 2011, has seen instability (political, social and economic) but it also offered freedom of expression to employees and encourage the development of a favorable organizational climate. This could positively affect the adoption and implementation of managerial innovation. In fact, employees who express themselves freely are able to act and generate beneficial changes at all levels.

Like any study, this study has some limitations. Indeed, sample size was relatively small and included several sectors at once. It is recommended for future research to focus on a single sector in order to check whether the results of our study are representative. Similarly, future research can be oriented towards understanding the changes caused by the post-revolution environment and its impact on the management of the enterprise in general. It is also important to study the relationship between the post-revolution environment and the leadership style.

References

Alshekaili, S.A.R. and Boerhannoeddin, A. (2011) "Human capital approach towards enhancing innovation performance in Omani industrial firms: The role of knowledge management". Progress in Business Innovation & Technology Management 1, 23-33.

Anderson NR and West MA (1998) "Measuring climate for work group innovation: development and validation of the team climate inventory" Journal of Organizational Behavior, vol. 19, 3, 235-258.

Bakker, A. B., Schaufeli, W. B. , Leiter, M. P., & Toon, W. T. (2008) " Work engagement: An emerging concept in occupational health psychology" Work & Stress, 22, 187-200. http://dx.doi.org/10.1080/02678370802393649

Bargagliotti, L. A. (2012) "Work engagement in nursing: A concept analysis" Journal of Advanced Nursing, 68(6), 1414–1428. doi: 10.1111/j.1365-2648.2011.05859.x

Belias, D., & Koustelios, A. (2014) "Organizational culture and job satisfaction: A review" International Review of Management and Marketing, 4(2), 132-149.

Ben Moussa N (2014) " The role of leadership, individual creativity and organizational climate in the development of innovative capability of Tunisian companies" International Review of Management and Business Research, vol.3 Issue 4, 1828- 1835.

Ben Moussa Nejib and Imed Zaiem (2013) « Les facteurs explicatifs des obstacles à l'innovation : investigation empirique dans les entreprises tunisiennes » International

Conference on Business, Economics, Marketing & Management Research, November 24-26, Sousse, Tunisia.
Birkinshaw, J., Hamel, G., & Mol, M. J. (2008) "Management innovation" Academy of Management Review, 33 (4), 825-845.
Bolivar-Ramos, M.T., Garcia-Morales, V.J., Garcia-Sanchez, E., (2012) "Technological distinctive competencies and organizational learning: effects on organizational innovation to improve firm performance" Journal of Engineering and Technology Management 29 (3), 331–337.
Bowman, E., Hurry, D. (1993) "Strategy through the option lens: an integrated view of resource investment and the incremental choice process" Academy of Management Review 18, 760–782.
Brown, S.L., Eisenhardt, K.M. (1995) " Product development: past research, present findings, and future directions" Academy of Management Review 20, 343–378.
Chang, C.M. (2011) "New organizational designs for promoting creativity: a case study of virtual teams with anonymity and structured interactions" Journal of Engineering and Technology Management 28 (4),268–282.
Chinomona Elizabeth, Babatunde A. Popoola, Emmanuel Imuezerua, (2017) "The Influence Of Employee Empowerment, Ethical Climate, Organisational Support And Top Management Commitment On Employee Job Satisfaction. A Case Of Companies In The Gauteng Province Of South Africa", The Journal of Applied Business Research – January/February, Volume 33, Number 1.
Clercq, D. and Rius, I. (2007) "Organizational Commitment in Mexican Small and Medium-Sized Firms: The Role of Work Status, Organizational Climate, and Entrepreneurial Orientation" Journal of Small Business Management, 45(4), 467.
Collins Christopher J, Smith (2006) " Knowledge exchange and combination: the role of human resource practices in the performance of high-technology firms" Academy of Management Journal, Vol. 49, No. 3, 544–560.
Damanpour, F. & Evan, W. M. (1984) "Organizational Innovation and Performance: The Problem of "Organizational Lag" Administrative Science Quarterly, 29(3),392-409.
Delhey, J. (2010) "From materialist to post-materialist happiness? National affluence and determinants of life satisfaction in cross-national perspective" Social Indicators Research, 97(1), 65-84.
Drechsler, W. & Natter, M.(2012) " Understanding a firm's openness decisions in innovation" Journal of Business Research, 65(3), 438-445.
Duncan, R.B., (1972) " Characteristics of perceived environment and perceived environmental uncertainty" Administrative Science Quarterly 17, 313–327.
Fernandez, S. & Moldogaziev, T. (2011) " Empowering Public Sector Employees to Improve Performance: Does it Work?" American Review of Public Administration, 41, 23-47.
Fornell, C., Larker, D.F. (1981) " Evaluating Structural Equation Models with Unobservable Variables and Measurement Error" Journal of Marketing Research, 18,39-50.
Fritzsche, B.A. and Parrish, T.J. (2005) "Theories and Research on Job Satisfaction" In: Brown, R. and Lent, R., Eds., "Career Development and Counseling: Putting Theory and Research to Work" Wiley, New York, 180-202.
Gefen, D., Straub, D.W. and Boudreau, M.-C (2000) "Structural Equation Modeling and Regression: Guidelines for Research Practice" Communications of the Association for Information Systems (4:7), 1-77.
Gould-Williams, J., & Davies, F. (2005) "Using social exchange theory to predict the effects of HRM practice on employee outcomes: An analysis of public sector workers" Public Management Review, 7, 1-24.

Gruman, J.A.; Saks, A.M., (2011) “Performance Management and employee engagement” Human Resource Management Review 21, 123-136.

Hair, J.F., Ringle, C.M., Sarstedt, M. (2013) “Partial least squares structural equation modeling: rigorous applications, better results and higher acceptance” Long Range Planning 46 (1/2),1-12.

Hamel, G. (2006) “The why, what, and how of management innovation” Harvard Business Review, 84(2), 72-84.

Hamel, G. (2009) “ Moon shots for management” Harvard Business Review, 87(2), 91-98.

Hancock, J.I., Allen, D.G., Bosco, F.A., McDaniel, K.R., Pierce, C.A., (2013) “ Meta-analytic review of employee turnover as a predictor of firm performance” Journal of Management, 39 (3), 573–603.

Huang, M.-C., Yen, G.-F., & Liu, T.-C. (2014) “ Reexamining supply chain integration and the supplier performance relationships under uncertainty” Supply Chain Management: An International Journal, 19(1), 64–78.

Huchzermeier, A., Loch, C.H., (2001) “ Project management under risk: using the real options approach to evaluate flexibility in R&D” Management Science 47, 85–101.

Huhtala, H., & Parzefall, M. R. (2007) “ A review of employee well-being and innovativeness: An opportunity for a mutual benefit” Creativity and Innovation Management, 16(3), 299-306.

Hulya G. Cekmecelioglu, Ayse Gunsel (2013) “The effects of individual creativity and organizational climate on firm innovativeness” Procedia - Social and Behavioral Sciences, 99, 257 – 264.

Inanlou Zeinab, Ji-Young Ahn, (2017) “The Effect Of Organizational Culture On Employee Commitment: A Mediating Role Of Human Resource Development In Korean Firms” The Journal of Applied Business Research – January/February, Volume 33, Number 1.

Jain, K.K., Jabeen, F., Mishra, V. and Gupta, N. (2007) “Job Satisfaction as Related to Organizational Climate and Occupational Stress: A Case Study of Indian Oil” International Review of Business Research Papers, 3(5),193-208.

Janssen, O., Yperen, & Van, N. W. (2004) “ Employees goal orientations, the quality of Leader-member exchange, and the outcomes of job performance and job satisfaction” Academy of Management Journal, 47(3), 368-384.

Kmieciak, R., Michna, A., Meczynska, A., (2012) “Innovativeness, empowerment and IT capability: evidence from SMEs”. Industrial Management & Data Systems. 112 (5), 707–728.

Lannoo, S., Verhofstadt, E. (2016) “What drives the drivers? Predicting turnover intentions in the Belgian bus and coach industry” Transportation Research Part A Policy and Practice, 91, 251–259.

Latan Hengky, Charbel Jose Chiappetta Jabbour, Ana Beatriz Lopes de Sousa Jabbour, Samuel Fosso Wamba, Muhammad Shahbaz (2018) “Effects of environmental strategy, environmental uncertainty and top management's commitment on corporate environmental performance: The role of environmental management accounting” Journal of Cleaner Production, 180, 297-306.

Lawrence, P.R., Lorsch, J.W., (1967) “Organization and Environment: Managing Differentiation and Integration” Harvard Business School Press, Boston.

Lee, H., Cayer, N.J. and Lan, G.Z. (2006) “ Changing Federal Government Employee Attitudes since the civil service reform act” Review of Public Personnel Administration, 26: 21-51.

Levinthal, D.A., (1997) “ Adaptation on rugged landscapes” Management Science 43, 934–950.

Locke, E.A., (1976) “The Nature and Causes of Job Satisfaction” Chicago: Rand McNally

Martin-de Castro Gregorio, Delgado-Verde Miriam, Amores-Salvado Javier and Emilio Navas-Lopez Jose (2013) "Linking human, technological, and relational assets to technological innovation: exploring a new approach" Knowledge Management Research & Practice 11, 123–132.

Martín-de Castro, G., Delgado-Verde, M., Navas-López, J.E., Cruz-González, J., (2013) "The moderating role of innovation culture in the relationship between knowledge assets and product innovation" Technological Forecasting and Social Change, 80 (2), 351–363.

Mayhew, M. G., Ashkanasy, N. M., Bramble, T., & Gardner, J. (2007) "A study of the antecedents and consequences of psychological ownership in organizational settings" The Journal of Social Psychology, 147(5), 477–500.

Menzel, H., Aaltio, I., Ulijn, J., (2007) "On the way to creativity: engineers as intrapreneurs in organizations" Technovation 27 (12), 732–743.

Merschmann, U., & Thonemann, U. W. (2011) " Supply chain flexibility, uncertainty and firm performance: An empirical analysis of German manufacturing firms" International Journal of Production Economics, 130(1), 43–53.

Miles, R.E., Snow, C.C., (1978) "Organizational Strategy, Structure and Process" McGraw-Hill, New York.

Mol, M. J., & Birkinshaw, J. (2009) "The sources of management innovation: when firms introduce new management practices" Journal of Business Research, 62(12), 1269-1280.

Morrison, E. W. (1994) "Role definition and organisational citizenship behaviour: the importance of the employee's perspective" Academy of Management Journal, 37, 1543 - 1567.

Nieves Julia , Segarra-Cipres Mercedes(2015) " Management innovation in the hotel industry " Tourism Management 46 ,51-58.

Organ, D. W., & Ryan, K. (1995) "A meta-analysis review of attitudinal and dispositional predictors of organisational citizenship behavior" Personnel Psychology, 48, 775 - 802.

Paik Y., Parboteeah P., et Shim W., (2007) « The relationship between perceived compensation, organizational commitment and job satisfaction: the case of Mexican workers in the Korean Maquiladoras », Int. J. of Human Resource Management, October 2007, 1768–1781.

Park, S.M. and Rainey, H.G. (2007) " Antecedents, Mediators, and Consequences of Affective, Normative, and Continuance Commitment: Empirical Tests of Commitment Effects in Federal Agencies" Review of Public Personnel Administration, 27, 197-226.

Park, T., Rhee, J., & Lee, D. H. (2010) "Drivers of innovativeness and performance for innovative SMEs in South Korea: mediation of learning orientation" Technovation, 30(1), 65-75.

Pettigrew, A.M., Whittington, R., Melin, L., Sanchez-Runde, C., Van den Bosch, F.A.J., Ruigrok, G., Numagami, T., (2003) " Innovative Forms of Organizing" Sage, London, UK.

Pillai, R., Williams, E.A. (2004) "Transformational leadership, self-efficacy, group cohesiveness, commitment, and performance" J. Organ. Change Manag. 17 (2), 144 -159.

Pondeville, S., Swaen, V., Rong_e, Y.D., (2013) " Environmental management control systems: the role of contextual and strategic factors" Management Accounting. Research, 24 (4), 317-332.

Pool, S., & Pool, B. (2007) "A management development model: measuring organizational commitment and its impact on job satisfaction among executives in a learning organization" Journal of Management Development, 26, 353-369.

Popa Simona, Pedro Soto-Acosta, Isabel Martinez-Conesa (2017) " Antecedents, moderators, and outcomes of innovation climate and open innovation: An empirical study in SMEs" Technological Forecasting & Social Change, 118, 134-142.

Prakash, Y., Gupta, M., (2008) " Exploring the relationship between organisation structure and perceived innovation in the manufacturing sector of India. Singap" Management Review, 30 (1), 5-76.

Putti, J. M. and Kheun, L. S. (1986) " Organizational Climate - Job Satisfaction Relationship in a Public Sector Organization" International Journal of Public Administration, 8(3), 337.

Rasulzada, F., & Dackert, I. (2009) "Organizational creativity and innovation in relation to psychological well-being and organizational factors. Creativity Research Journal, 21, 191-198.

Rhee, J., Park, T., & Lee, D. H. (2010) " Drivers of innovativeness and performance for innovative SMEs in South Korea: mediation of learning orientation" Technovation, 30(1), 65-75.

Rich, B.L., LePine, J.A., Crawford, E.R., (2010) "Job engagement: antecedents and effects on job performance" Academy of Management Journal. 53, 617-635.

Ringle C.M., Wende S., Will A. (2005) "SmartPLS 2.0 (beta), Hamburg: http://www.smartpls.de. University of Hambourg, Germany.

Rubalcaba, L., Gallego, J., & Hipp, C. (2013) "Services and organisational innovation: the right mix for value creation" Management Decision, 51(6), 1117-1134.

Rubera, G. and Kirca, A., (2012) " Firm innovativeness and its performance outcomes: A meta-analytic review and theoretical integration" Journal of Marketing, 76(3), 130-147.

Ruth, M. G. (1992) "Organizational Climate And Communication Climate. Predictors of Commitment to the Organization" Management Communication Quarterly: McQ (1986-1998), 5(4), 379.

Sánchez-Beaskoetxea, J., Coca García, C., (2015) "Media image of seafarers in the Spanish printed press" Maritime Policy Management, 42 (2), 97–110.

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002) "The measurement of engagement and burnout: A two sample confirmatory factor analytic approach" Journal of Happiness Studies, 3(1), 71–92.

Scott, S. & Bruce, R. (1994) " Determinants of innovative Behavior" Academy of Management Journal", 3, 580-607.

Sempane, M.E., Rieger, H.S., Roodt, G., (2002) " Job satisfaction in relation to organizational culture" South African Journal of Industrial Psychology, 28(2), 23-30.

Sie, R. T., Chu, Y. C., & Chen, J. (2007) "Study on the relations between management innovation and customer citizenship behaviors" Journal of Small Business and Enterprise, 12(2), 33-35.

Sieger Philipp, Bernhard Fabian, Frey Urs (2011) " Affective commitment and job satisfaction among non-family employees: Investigating the roles of justice perceptions and psychological ownership" Journal of Family Business Strategy, 2, 78–89.

Siggelkow, N., Rivkin, J.W., (2005) " Speed and search: designing organizations for turbulence and complexity" Organization Science 16, 101–122.

Sirková, M.; Ali Taha, V.; Ferencová, M., (2014) "An analytical study on organizational creativity implications for management" Polish Journal of Management Studies. 10(2), 179-187

Slusarczyk, B.; Kot, S., (2012) " Polish government impact on foreign direct investments", Polish Journal of Management Studies 6, 45-54.

Soto-Acosta, P., Popa, S., Palacios-Marqués, D., (2016) "Social web knowledge sharing and innovation performance in knowledge-intensive manufacturing SMEs" Journal of technology Transfer, 40 (4), 581-601.

Spector, P.E.(2008). "Industrial and Organizational Psychology" 6th edition, Wiley.

Straub, D. (1989) "Validating instruments in MIS research" MIS Quarterly, 13(2), 147-169.

Towers Perrin HR Services (2003) “Working today: Understanding what drive employee engagement”, US report.

Towers Perrin HR Services (2007). Closing the engagement gap: A road map for driving superior business performance, Global report.

Vaccaro, I. G., Jansen, J. J. P., Van Den Bosch, F. A. J., & Volberda, H. W. (2012) “ Management innovation and leadership: the moderating role of organizational size” Journal of Management Studies, 49(1), 28 -51.

Van Dyne, L., & Pierce, J. L. (2004) “Psychological ownership and feelings of possession: Three field studies predicting employee attitudes and organizational citizenship behavior” Journal of Organizational Behaviour, 25(4), 439-459.

Verdu-Jover, A.J., Llorens-Montes, J.F., Garcia-Morales, V.J (2005) “Flexibility, fit and innovative capacity: an empirical examination” International Journal of Technology Management 30, 131–146.

Volberda, H. W., Van Den Bosch, F. A. J., & Heij, C. V. (2013) “Management innovation: management as fertile ground for innovation” European Management Review, 10(1), 1-15.

Volberda, H., Khanagha, S., Sidhu, J., & Oshri, I. (2013) “Management innovation and adoption of emerging technologies: the case of cloud computing” European Management Review, 10(1), 51-67.

Wagner, R., & Harter, J. K. (2006) “ The elements of great managing” Gallup Press New York.

Walker, R. M., Damanpour, F., & Devece, C. A. (2010) “Management innovation and organizational performance: the mediating effect of performance management” Journal of Public Administration Research and Theory, 21, 367-386.

Wu, L.-Y. (2010) “Which companies should implement management innovation? A commentary essay” Journal of Business Research., 63(3), 321-323.

Xu et al. (2008) “Networking and innovation in SMEs: Evidence from Guangdong province, China” Journal of small Business and Enterprise Development, 15(4), 788–801.

Yeh Ying-Pin (2014) “ Exploring the impacts of employee advocacy on job satisfaction and organizational commitment: Case of Taiwanese airlines” Journal of Air Transport Management (36), 94 -100.

Yi-Jen, C. (2007) “Relationships Among Service Orientation, Job Satisfaction and Organizational Commitment in the International Tourist Hotel Industry” Journal of American Academy of Business, Cambridge, 11(2), 71.

Zhou, K. Z, Li, J. J., Zhou, N., & Su, C. (2008) “ Market orientation, job satisfaction, product quality, and firm performance: Evidence from China” Strategic Management Journal, 29(9), 985–1000.