



The personal and organizational factors who influence the creativity of the personnel

Les facteurs personnels et organisationnels qui influencent la créativité

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Date de soumission : 20/04/2020

Date d'acceptation : 28/05/2020

Pour citer cet article :

DANI S. & FARIDI M. (2020) « The personal and organizational factors who influence the creativity of the personnel », Revue Internationale du Chercheur « Volume 1 : Numéro 2 » pp : 238 - 251

Digital Object Identifier : <https://doi.org/10.5281/zenodo.3877598>



Abstract

The purpose of this article is to identify the personal and organizational factors that influence creativity of employees. On this research we defined three hypotheses and we aim to analyze the effect of this three factors: intrinsic motivation, encouragement of management and autonomy at work on creativity.

We opted for a quantitative survey, our target is 131 employees, interviewed face-to-face in three railway stations: Brussels-South, Liège-Guillemins and Charleroi-South stations

After analyzing the data, our three hypotheses were confirmed.

Key words:

Creativity ; innovation ; creative spirit ; creative behavior ; impact.

Résumé

L'objectif de cet article est d'identifier les facteurs personnels et organisationnels qui influencent la créativité des employés. Nous avons défini trois hypothèses et nous visons à analyser l'effet de ces trois facteurs : la motivation intrinsèque, l'encouragement de la gestion et l'autonomie au travail sur la créativité des employés.

Nous avons opté pour une enquête quantitative, notre échantillon est constitué de 131 employés, interrogés en face à face dans trois gares ferroviaires : Gares de Bruxelles-Sud, Liège-Guillemins et Charleroi-Sud

Après analyse des données, nos trois hypothèses ont été confirmées.

Mots clés :

Créativité ; innovation ; esprit créatif ; comportement créatif ; impact



Introduction

Creativity is influenced by several factors related to the person and the work environment. The knowledge of the impact of these variables on creativity, will allow the company to choose and implement the factors that would enhance the creative spirit of the person.

Nowadays companies are more and more aware of the importance of having creative employees, able to produce new ideas and engage in new projects, who are not afraid to take risks and who have an entrepreneurial spirit. These employees will act as a locomotive that will boost the growth of the company and transform it into an innovative and competitive organization.

Indeed, in order to encourage the creative spirit, a set of factors must be brought together, and these are linked either to the person or to the organizational environment of the company.

By understanding the factors that most encourage creativity, management can be sure to choose the right factors that will positively influence creativity, and that will motivate employees to generate innovative ideas and entrepreneurship within the organization.

The results of this work will be of great use to any company that wants to encourage creativity and innovation, whether it is a private or public company, small, medium or large enterprise.

Our problematic question is: which personal and organizational factors have the greatest impact on employee creativity?

We have developed three working hypotheses to answer our problematic question:

- Intrinsic motivation could have a positive impact on creativity;
- Management incentives could positively influence creativity.
- Autonomy at work could positively influence creativity;

Our paper has three sections:

In a first section we will explain the notion of creativity, the different personal and organizational factors that influence the creative mind .The Second part will present the methodology of our study and finally in a last section we will present the results of our analysis.



1) The theoretical framework :

Bernard Demory defined creativity as the ability of individuals to create new ideas (Bernard Demory, cited by Camille Carrier, 2007). These ideas are the result of an intellectual process (Madeleine Roy, Camille Carrier, 1997). For Amabile (1988), creativity is the ability to produce new and useful ideas. Similarly, creativity can be considered a talent possessed by a person that will enable him to propose innovative solutions necessary for the firm's development (L. Timbal-Duclaux, cited by Camille Carrier, 1997).

In conclusion, we can say that creativity can be defined as the ability of an employee or group of employees to generate new, original and feasible ideas.

Under the agreement of the majority of authors, there are several factors that can boost creativity within the organization, of which we find elements that are associated with either the individual or the organizational environment. We will devote this section to discuss personal characteristics and then explain the other organizational factors.

1.1 The effect of personal characteristics

1.1.1 Personality

In order to assess the impact of personality on creativity, some research has been conducted and, as a result, some measures have been developed, such as the Creative Personality Scale (CPS) to measure creativity.

According to Barron and Harrington (1981), the CPS will identify individuals who have creative potential and those who score high are expected to deal with organizational problems. In addition, these individuals must have a high level of confidence in their abilities to successfully develop their original ideas.

Indeed, personality types have a great influence on a person's creativity. Some researchers believe that open-minded people are more likely to adapt to change, are curious, are always looking for information, and like to have new experiences (McCrae & Costa, 1997).

Feist (1998) also points out that openness to experiences has a positive impact on creativity, which is consistent with Scratchley and Hakstian, (2000) who were able to demonstrate that openness to experiences positively influences creativity.



1.1.2 The cognitive model

Amabile (1996) finds that there is a significant correlation between the cognitive model and creativity. Woodman et al. (1993) attempt to prove that there is a direct relationship between the cognitive model and the creativity of individuals.

Within this framework, some researchers (Kirton, 1994; Masten and Caldwell-Colbert, 1987) have studied the relationship between individuals' cognitive models and their creative achievements. The results show that individuals in innovative models tend to be more creative than those in the adaptive model.

1.1.3. Intrinsic motivation

Intrinsic motivation refers to the state of motivation of employees attracted by the task itself, not by the results that the task might produce (Deci & Ryan, 1985).

Intrinsic motivation is important for creativity, but it must interact with other variables to have a significant impact on creativity. Therefore, by combining intrinsic motivation with other factors such as experience and skills related to creativity, an individual's creativity will be higher (Amabile, 1988).

Amabile (1997) also pointed out that intrinsic motivation stimulates creativity and innovation.

Overall, we can say that intrinsic motivation positively influences the creativity and innovation of the individual. It affects a person's creative behaviour more than extrinsic motivation (Angle, 1989).

Amabile (1997) also indicates that intrinsic motivation stimulates creativity and innovation. In summary, we can say that intrinsic motivation increases creativity and innovation. It has a greater effect on an individual's creative behaviour than extrinsic motivation (Angle, 1989).

Organizational factors influencing creativity

After introducing the personal variables that affect creativity, we will look at various organizational factors that have a positive impact on creativity:



1.2 The Effect of Organizational Characteristics

1.2.1 The management incentives:

Several authors have studied the relationship between employee creativity and management incentives. For example, Frese, etc. (1999) shows that: the more management encourages employees, the more creative they will be. If we talk about management encouragement, we are talking about clear goals, management support and openness to new ideas and proposals (Amabile et al., 1996) We can see that management encouragement and support have a positive impact on employee creativity. In addition, Stahl and Koser (1978) found that there is "a negative correlation between management control and staff creativity".

We can see that the control exercised by management has a negative impact on the creativity of employees.

1.2.2 The relationship with co-workers

Several researches have studied the relationship between the support of colleagues and a person's creativity. For example, Amabile et al. (1996) showed that the more employees are encouraged by their colleagues, the more creative they will be.

In the same context, Zhou and George (2001) pointed out that there is a significant positive correlation between employee creativity and colleague support. Therefore, a person who has a good relationship with co-workers will be more creative compared to someone who works in a selfish environment.

In addition, Shalley and Oldham (1997) argue that people who compete with other employees produce more creative ideas than those who do not compete.

In addition, Shalley and Oldham (1997) believe that people who compete with other employees produce more ideas than those who do not.

We find that the support of co-workers positively influences employee creativity.

1.2.3. Autonomy at work

Amabile (1998) points out that: giving employees the freedom to choose their goals does not affect their creativity, but giving them the freedom to decide how they achieve those goals will have a greater impact on their creativity. Clear and specific strategic goals can often enhance employee creativity.

So it can be said that autonomy in the workplace positively impacts employee creativity.



1.2.4 Rewards

Several researchers are trying to show that rewards have a negative effect on creativity. Amabile (1996) believes that rewards are seen as a form of control that leads to a decrease in a person's intrinsic motivation and creativity. Similarly, Kruglanski, Friedman and Zeevi (1971) showed through their research that students to whom they did not promise rewards were more creative than those to whom they did.

Some researchers (Eisenberger, 1992; Eisenberger and Armeli, 1997) believe that rewards increase the creativity of individuals.

The idea is that sometimes the reward can have a positive effect on creativity and in other cases it can negatively influence the intrinsic motivation and creativity of staff.

1.2.5. Spatial organization of the work environment:

Oldham, Cummings and Zhou (1995); Sundstrom (1986) suggests that people who work in dense spaces find it difficult to concentrate on their work, which reduces their intrinsic motivation and creativity. In the same context, Soriano de Alencar and Bruno-Faria (1997) found that an inappropriate physical environment (small space, noise) negatively influences employees' creativity; on the other hand, people working in less dense work spaces will be more creative (Aiello et al., 1977).

However, it should be noted that the creativity of employees working with competitors in a borderless space is lower than that of employees working with competitors in a space with borders (Shalley and Oldham, 1997).

2. Methodology

2.1 Purpose of the Study The central objective is to study the impact of personal and organisational characteristics on employee creativity and innovation, and to propose recommendations to companies that encourage the creative spirit.

2.2 Statistical unit and sample size

For our quantitative study the statistical unit is the employee, we opted for convenience sampling, in this model "The majority of community members do not have the opportunity to be selected Only those who are within the reach of the interviewer or in the location where the survey is conducted, they have the opportunity to be selected" Kinner (1981)



In our case, we administered the questionnaire in railway stations, therefore only employees at that location were included in our sample, and the choice of this location was justified by the fact that people taking or waiting for the train have at that time a free time that makes it easier for them to agree to participate in the survey.

The sample was selected with the following assumptions in mind:

- Hypothesis 1: Any employee who works in a company regardless of age, gender, education or experience could be creative.
- Hypothesis 2: We do not take into account the size of the company, the sector of activity and the region of activity.

2.3 The development of the questionnaire

2.3.1 The questionnaire

The questionnaire was developed in a relevant manner to meet the objectives of the study and to clearly identify the various components of the research. Our questionnaire is written in French in a simple and guided manner. It is divided into several parts:

The first part gathers information on creativity and innovation in the company: proposal and implementation of ideas by staff, type of creativity (individual or group), whether or not it is linked to the company's activity, follow-up of ideas, and means implemented by the company to stimulate creativity.

- The second part gathers information about the work done: Existence of rules and procedures, nature of the work (stimulating, enjoyable...) degree of autonomy at work, employer who may or may not have the necessary skills to carry out his professional tasks.

- The third part deals with information about the work climate: whether or not management supports and encourages creativity, whether or not the employee is attached to his or her company and whether or not he or she intends to leave his or her job.

- The fourth part collects information about the relationship with the superior: being proud to work with him, feeling consideration and admiration for him, checking whether the employer is satisfied or not with the work done by his employee, and assessing the level of trust the employer places in his employee.



- The last part deals with general information: the company for which the person works, gender, age, seniority, level of education, type of contract, and employment status.

2.3.2 Measurement scales

Intrinsic motivation: was measured by 5 items, taken from "Heinonen , J.and Korvela , K . (2003), How about measuring intrapreneurship, paper presented at the 33rd Entrepreneurship , Innovation and Small business Conference, 10-12 September, Milan, Italy ". The respondent has the choice between 5 responses on a Likert scale of "Not from Agree" to "Strongly Agree", the objective is to measure the intrinsic motivation of the employee.

- Autonomy at work: we used the 3 items taken from "Fuller, j. b. Marler, L.E.". Hester, K. (2006). Promoting felt responsibility for constructive change and proactive behavior: exploring aspects of an elaborated model of work design, Journal of Organizational Behavior, 27 , 1089-1120" to measure this variable. These items make it possible to estimate the degree of freedom the employee enjoys.

- Management encouragement: to measure it we adopted the 8 items from "Farmer, S.M., Tierney,P.". Kung & Kung - McIntyre", employee creativity in Taiwan: An application of role identity theory, Academy of Management Journal, 46(5), 618-630. Responses range from 1 "Strongly disagree" to 5 "Strongly agree", with an average score calculated at the end.

- Creativity: measured 5 items from the work of George and Zhou's (2001). An arithmetic average is calculated to evaluate the creativity of each employee, a high score indicates that the person has a high creative potential. The answers are from 1 to 5.

3) The results of the study

We'll start with the first hypothesis: **Intrinsic motivation could have a positive impact on creativity;**

Statistiques descriptives

	Moyenne	Ecart-type	N
SCOREINT	3,6317	,6063	131
SCORECRE	3,5623	,5594	131

Corrélations

		SCOREINT	SCORECRE
SCOREINT	Corrélation de Pearson	1,000	,330**
	Sig. (bilatérale)		,000
	N	131	131
SCORECRE	Corrélation de Pearson	,330**	1,000
	Sig. (bilatérale)	,000	
	N	131	131

** . La corrélation est significative au niveau 0.01 (bilatéral).

We find that the correlation is significant, so the null hypothesis that there is no correlation between intrinsic motivation and creativity is rejected. So there is a positive relationship between these two variables, since the correlation coefficient is positive. It has a value of 0.330 which shows that the two variables, creativity and intrinsic motivation, are weakly related.

And as long as the coefficient is positive, the higher the intrinsic motivation, the more the employee's creativity increases and the lower the intrinsic motivation, the more the employee's creativity decreases.

Concerning the second hypothesis : **Management incentives could positively influence creativity.**

Statistiques descriptives

	Moyenne	Ecart-type	N
SCORECRE	3,5623	,5594	131
SCOREENC	3,4924	,7297	131

Corrélations

		SCORECRE	SCOREENC
SCORECRE	Corrélation de Pearson	1,000	,296**
	Sig. (bilatérale)		,001
	N	131	131
SCOREENC	Corrélation de Pearson	,296**	1,000
	Sig. (bilatérale)	,001	
	N	131	131

** . La corrélation est significative au niveau 0.01 (bilatéral).

Statistiques descriptives

Ecart-type	N
,6063	131
,5594	131

The analysis of the results shows that the correlation between the variables: creativity and management encouragement is significant. But this correlation is weak since the correlation coefficient is equal to 0.296, this coefficient is positive, so the more management encouragement, the more the employees' creativity increases.

And for the third hypothesis : **Autonomy at work could positively influence creativity;**

Statistiques descriptives

	Moyenne	Ecart-type	N
SCORECRE	3,5623	,5594	131
SCOREAUT	3,6539	,7706	131

Corrélations

		SCORECRE	SCOREAUT
SCORECRE	Corrélation de Pearson	1,000	,383**
	Sig. (bilatérale)	,	,000
	N	131	131
SCOREAUT	Corrélation de Pearson	,383**	1,000
	Sig. (bilatérale)	,000	,
	N	131	131

** . La corrélation est significative au niveau 0.01 (bilatéral).

The correlation coefficient has a value of 0.383, which shows that the correlation between the variables creativity and autonomy at work is low. The correlation is positive so employee creativity increases when autonomy at work is high. We can also add that the correlation is significant.

In conclusion we can say that there is a low correlation between these variables, and that these data vary in the same direction since the correlation coefficient is positive.

Furthermore, the regression analysis showed us that there is a significant relationship between the three independent variables and creativity, and that these three variables explain 17.9% of creativity.

Intrinsic motivation accounts for 10.9% of creativity and Amabile (1997) also showed in his research that intrinsic motivation stimulates creativity, Angle (1989) also argues that intrinsic motivation has a greater effect on an individual's creative behaviour than extrinsic motivation.



Intrinsic motivation then appears to be an ingredient that favours the employee's creativity, and therefore it can be said that intrinsic motivation has a positive impact on creativity. Hypothesis H1 is confirmed.

To sum up, we have to take into consideration the impact of management incentives on creativity, the results show that management incentives explain 8.8% of creativity, thus Frese et al. (1999) found that with more encouragement from supervisors, employees will be more creative, and according to George and Zhou (2001) and Zhou (2003) any form of control negatively affects creativity.

In summary, we can consider management incentives as a second ingredient that stimulates creativity, and therefore we can say that management incentives have a positive impact on creativity. Hypothesis H2 is confirmed.

Regarding the variable "autonomy at work", the results of our research show that it explains 14.7% of creativity. And to go further, research has been done by Amabile (1998): she indicates that employees become more creative when the company gives them the freedom to choose the way and means with which they will achieve their goals. So autonomy at work is the third ingredient that increases employee creativity. And it has a positive impact on creativity. Indeed, the H3 hypothesis is confirmed.

Conclusion

Through this work, we have tried on the one hand to explain theoretically the different notions related to creativity and to highlight the different factors influencing this concept. This study has identified a number of personal and organisational characteristics that have an impact on creativity.

On the other hand, the analysis focused on the three factors that have the most influence on creativity: intrinsic motivation, autonomy at work and management encouragement.

Overall, it may be said that all three factors have a positive impact on creativity, and that autonomy at work is the variable that has the most influence on creativity. The promotion of these three factors will help to encourage the creative spirit, which is the source of innovation. Finally, we can state that all our hypotheses are confirmed.



Search Limit :

Of course this work has been done with many implications, but it does have certain limitations:

- Insufficient sample size: we planned to collect data from 480 people, we contacted several workers, 131 employees agreed to answer our questionnaire. The non-participation of other people is justified by time constraints. In addition, a larger number of interviewees will provide more reliable results.

Future ways of research :

For future research, we think it would be interesting:

- To evaluate the impact of other factors influencing creativity, for example personality, support from co-workers, or the spatial organisation of the work environment.
- By selecting a more representative sample of employees and managers, they will be able to assess the creativity of their subordinates, which will lead to more reliable results.

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