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Informative and Affective Determinants of Pro-Innovative Behaviours

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Abstract:

Purpose: *The aim of this article is to provide a comprehensive analysis of those conditions conducive to employee creativity, expressed in the development of ideas, as well as the initiation and continuation of such activities, leading to the implementation of an innovative solution.*
Design/Methodology/Approach: *The research was of a qualitative character, and was based on interviewing the authors of those solutions which meet the assumed criteria.*
Findings: *The research allowed us to identify the cognitive and affective determinants of the creative processes and of their transformation into the implementation of innovative solutions. The research has also shown the high importance of the process of organisational knowledge, and the catalysing influence that the fact of acquiring knowledge from external sources had on the creative processes themselves. The factors influencing the induction and maintenance of the useful emotional state of the authors of the ideas are also indicated. The emotions turned out to be important both for taking the initiative and for continuing the process of implementing the idea in practice. The research also showed the specific role that intrinsic and extrinsic motivation played in the initiation and implementation of the initiative.*
Practical implications: *The article indicates those organisational conditions which are conducive to the development of ideas and to the taking of initiative to transform them into innovative organisational solutions. The research also shows the role of both intrinsic and extrinsic motivation in undertaking such creative and innovative activities. Attention is also paid to the influence that the practices of the authors of the projects themselves in the field of knowledge acquisition had on the dynamics of the innovation process.*
Originality/Value: *The article focuses on the transformation of a result of the creative process, namely, the idea of an individual employee, into an innovative organisational process. As a result, such work combines the issues of individual creativity and organisational innovation, which are usually discussed separately. It also helps us understand the conditions necessary for the transformation of spontaneous ingenuity into worthwhile solutions.*

Keywords: *Organisational creativity, innovation, qualitative research.*

JEL codes: *D83, L26, M14, O31.*

Paper type: *Research article.*

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1. Introduction

Innovation is one of the most important concepts in current management practice and theory (Agbor, 2008). It is now a key factor in the competitiveness of enterprises. According to Leonard, innovation is the "embodiment, combination and / or synthesis of knowledge in novel, relevant, valued, new products, processes, or services" (Leonard and Swap, 1999). Innovation research is conducted at various levels, individual, team and organisational. The organisational level consists of the processes and systemic conditions of the innovation process (Damanpour and Aravind, 2012). The source of innovative ideas are creative processes taking place at the individual or team level (Amabile *et al.*, 1996). Therefore, individual and team creativity is a necessary starting point for innovation. At the same time, the creative process in the organisation is a learning process - generating and transferring knowledge (Leonard, 2006). The innovative process can therefore be defined as a creative process operating on that knowledge which is the content of an organised activity, carried out by creative people and teams.

This article analyses the issues of individual innovative initiatives. This concept is understood as being those individual decisions made to present an original idea for implementation in order to improve a selected aspect of a company's operation. According to the theoretical model adopted, innovation is the updating (use) of the creative potential of the enterprise, a key component of which is individual and team creativity. By focusing on the individual – i.e. the author of the idea who decided to propose it for implementation – we can capture those conditions that cause the individual to cross the barrier between the world of their inner imagination and that of the enterprise – the organised system that is to be changed by the implementation of their original idea. The research combines two important issues which are usually discussed separately: individual creativity and innovation as an organisational process.

2. Literature Review

The Componential Model of Creativity (Amabile, 1988) was adopted as the starting point for the research concept, presenting a wide set of factors for influencing creativity and innovation in organisations. This model is made up of three components: the first is domain-relevant skills, including factual knowledge, technical skills, and special talents in the domain in question. The second component of the model is creativity-relevant skills. This is a set of various factors of a heterogeneous nature, including personality traits, skills and personal knowledge. The third component is the intrinsic task motivation.

Domain-relevant skills are a necessary condition for the proper performance of professional tasks. It allows you to interpret information in a way that provides the expected response. It can be understood as a team of cognitive pathways which allow a person to solve a problem or perform a task in a manner consistent with the

standards of the organisation, meeting the expectations of colleagues and systems. This knowledge is explicit and tacit; in part, it is unique for each employee, and in part it constitutes shared mental models created during the process of team learning (Van den Bossche *et al.,* 2011).

The creative potential arises thanks to creativity-relevant skills. Freud's search for the creative aspects of the personality started in 1908. Research conducted among both creative geniuses and ordinary people in their ordinary lives allowed for the formulation of the characteristics of creative personalities (Selby *et al.*, 2005; Feist, 2010). In the organisational context, however, personality is of less importance, because the creative subject on which organisations rely are teams (Shalley *et al.*, 2004).

There are arguments showing the impact of diversity on team creativity (Govendo, 2005), with the diversity of competences being more important than the individual personalities of the team members (Paulus *et al.*, 2012). The presence of creative personalities in the team positively influences the level of creativity of the team itself (Taggar, 2001). It is also influenced by the norms and types of motivation of the team members. Epistemic and pro-social, rather than pro-self, motivation have a positive effect on the level of creativity and sensitivity to the cognitive stimulation provided by others (Bechtoldt, 2010). The nature of the results of team creativity depends largely on the culture and context in which the team carries out its creative activity (Bechtoldt, 2010).

Another component of creativity-relevant skills is originality of thinking. This may be the result of a specific cognitive ability, namely, divergent thinking (Kim, 2005), or the use of deliberately developed methods of creative problem-solving, which provide ways to improve the originality and productivity of thinking. Such examples are brainstorming (Osborn, 1957), synectics (Gordon, 1961), and IDEALS (Nadler, 1967). These methods have undergone many subsequent variations and modifications.

Motivation is a necessary factor in turning an action into reality. An individual is motivated to act by external factors, or the action is taken without any sense of external control. The latter situation – intrinsic motivation – turns out to be particularly valuable in the case of creative activities (Hennessey, 2018). This type of motivation should be understood as a product of the long-term impact of the organisational environment on the individual, resulting in the internalisation of values (Black and Deci, 2000) and the creation of a pro-innovative organisational culture (Bechtoldt, 2010). Thanks to this, the individual shows a personal, long-term commitment to the activity implemented (Gagné and Deci, 2005).

Thus, intrinsic motivation is a factor conducive not only to creativity, i.e., generating ideas, but also to their application in the form of solutions which are valuable for the organisation. This process – the transformation of a creative idea into innovative

solutions – requires a special motivation, as it requires dealing with problems in the implementation, overcoming resistance in the organisation, and accepting that a certain period of time will be dedicated to being involved in the implementation.

Table 1. *Organisational and individual aspects of creative activity*

Component of the creativity model	Organisational aspect	Individual aspect
Creativity-relevant skills	Creativity is an ability or potential that can be used in a variety of ways. Enterprises try to be more creative in order to become more innovative (Brem *et al.*, 2017).	Individual creativity is a component of the creative potential of an organisation.
Domain-relevant skills	Internal entrepreneurship allows you to transfer the value of a creative idea to its useful application, which is innovation. Organisational creativity is the potential, while innovation is its use.	Using access to knowledge and information which allows us to know and understand (interpret) in a proper way the current situation of the company, its goals and intentions, as well as the state of the environment.
Intrinsic task motivation	The implementation of an innovative solution implies the need to adapt any interested parties to this newness. This means facing up to the implementation of organisational change. Success requires both proper leadership and the ability to manage changes.	The decision about personal commitment and committed participation in the process of change requires high motivation and a belief in the legitimacy of making such an effort.

Source: *Own creation.*

Table 1 shows the organisational and individual aspects of any creative activities carried out in the enterprise. An individual idea and initiative arise, and will also be implemented, in the reality of an organised action. This defines the division of roles between the organisation and the individual employee – the initiator of the innovative project. It also defines a certain set of mutual dependencies:

- There must be a certain level of organisational creativity that allows one to initiate and implement innovative processes, and permits pro-innovative behaviour to occur in the organisational space. Otherwise, ideas will not be submitted due to an expected negative assessment or opposition to the change.
- Information and knowledge processes which set the direction and shape of future innovation. The knowledge necessary to justify solving the problem and shaping the outline of the solution should be available to the party initiating the innovation.
- The personal motivation which triggers the action to make the innovation happen and to implement it. Even in the case of a high openness to innovation in the organisation, taking such action requires taking responsibility for participation in the process of project development and implementation. Expressing internal consent to overcome the resistance of routines requires one to be convinced about the high chance of obtaining support from the

organisation – from colleagues and superiors – and the high probability of the positive completion of the implementation.

3. Research Methodology

The research was conducted between September 2018 and February 2020 among employees of Polish enterprises. The condition for participation in the study was the personal authorship of an innovative solution that was approved and implemented in practice, or the implementation of which was being carried out or planned for. This solution should not have resulted directly from the respondents' fulfilment of their own professional tasks. Instead, it should have been the result of a personal idea which they were so convinced of that they decided to try to put it into practice. The research was conducted using the interview method. The participants were asked to present the implementation history as fully and as detailed as possible (Mueller, 2019). N=16 participants, who were the authors of projects meeting the above-mentioned criteria, took part in the research. The interviews were conducted in two different forms. In N=11 cases, a personal interview was conducted. The interview was recorded with the consent of the respondents. When compiling the results, the author used the recordings. The interviews lasted from 55 to 100 minutes. In N=5 cases, the respondents requested to write down their answer, in order to have time to think. In the researcher's opinion, such a modification of the procedure did not pose a risk of distorting the results, and so it was accepted.

4. Results

N=16 respondents participated in the study, 11 women and 5 men, aged 25 to 41 years. The average age of the respondents was $\bar{x}$=32.75 years, the average length of service in total $\bar{x}$=10.31 years, and the average length of service in the company where the ideas of innovation were created $\bar{x}$=7 years. N=6 people are middle-level managers (3 men and 3 women), N=4 are independent specialists (2 men and 2 women), N=6 are administrative employees (6 women). The respondents represent the following industries: consulting, pharmaceutical, commercial, manufacturing, logistics and IT. Each of the respondents was the author of an innovative solution. In N=13 cases, the solution has been implemented, in N=3 the solution has been accepted and its implementation is to start soon.

In the process of analysing the data, attention was paid to the relationship between the implementation of the innovative action and the description of the emotional states and cognitive processes that led to the shaping and presentation of, and involvement in, the implementation of the idea at its subsequent stages.

4.1 Human Relations and Sources of Knowledge

All respondents described the interpersonal relations in their professional work as very high. In the case of N=2 women in administrative positions, the relationships

mainly concern the employees and managers of the companies. In other cases, intensive contacts concern employees and customers (N=3), as well as employees, customers and suppliers (N=11). Thus, in each case the respondent constituted an important node of the information network, and knowledge was transferred through social relations.

In N=4 cases (3 women and 1 man), the intensity of using sources of knowledge in the performance of professional tasks was described as low. They were all administrative employees, and only a small part of their duties required the use of such sources. N=12 other respondents described the intensity of using external sources of knowledge as very high. They declared the use of a wide range of such: expert consultations, book publications, blogs, magazines, industry portals, market analyses and webinars.

4.2 The Emergence and Development of Ideas

In the case of N=2 people in managerial positions, the idea was part of a personal vision developed at the beginning of their career in their current position. In N=3 cases, the ideas arose during discussions in the employee's team (not brainstorming sessions). In the remaining N=11 cases, the idea of a solution was created by identifying a set of recurring problems during conversations with colleagues. Subsequent returns to the subject of the problems in conversations allowed them to be better understood. At a certain point, this deep understanding began to be accompanied by various ideas for solutions. In the process of the deliberate collection of information aimed at developing and refining the details of the idea, the exact same set of sources of knowledge was used in N=15 cases that was used in the implementation of professional tasks. Only in one case was a questionnaire prepared to help diagnose the organisational problems that were planned to be solved. None of the respondents used any inventive methods.

4.3 Motives and Emotions

The motivations for making the decision to present the idea as a project for implementation were as follows: N=2 respondents in managerial positions realised their previously created personal vision. The other respondents, thanks to the implementation, wanted to: N=2 – get rid of frustrating and limiting tasks, N=10 – test themselves and experience personal development, of which N=7 wanted to test their skills in the face of difficulties in the implementation, and N=4 wished to prove themselves in relation to their conviction that the project is useful for the organisation. One of the respondents (female, 31 years old, 7 years of work experience overall at her current place of employment, in the logistics industry, in a non-managerial position) stated as her motivation: *"(...) I was motivated by the curiosity to encounter difficulties. Checking whether I will be able to cope in a given situation myself. The new challenge has given me, above all, the will to develop. I imagined how the company could function after implementing what we had*

planned." For N=2 respondents, the basic motivation was the positive assessment of the management and co-workers.

While working on the project, N=14 respondents experienced positive emotional states described as contentment, euphoria, excitement and enthusiasm. These emotions were associated with both the process of making the project a reality and its completion. However, the truly positive reaction was to discover previously unforeseen positive results from the implementation. One of the respondents (female, 25 years old, a total work experience of 6 years, 4 in the current company, in the training and consulting industry, in a non-managerial position) describes her reactions as follows: *"While working on the project, I mostly felt only positive emotions. It was a challenge that I like. If I am convinced that what I do and what I am trying to do will bring positive results, it motivates me to act. Besides, it's a chance for my own development. I treat each new task as a challenge and a lesson for the future. It's good to see now how what you've been working on gives such a great effect. The atmosphere in the workplace has improved, employees willingly come to work, they get involved ... it infects them with optimism and a positive energy."*

One factor contributing to a positive emotional state during the implementation was a good team atmosphere. In N=15 cases, the interpersonal atmosphere was characterised as positive, or at least enabling one to function effectively thanks to clear rules. In N=1 case, the interpersonal atmosphere was characterised as being competition-fuelled by managers, full of misinformation and backbiting. However, this respondent found support for the implementation of her project by creating a social bubble around herself with people interested in implementing the change, providing her with a positive atmosphere and support.

5. Discussion

This research has allowed us to distinguish two sources of new solutions. They are vision and knowledge, both supported by motivation. An initiative to implement a vision is treated as a plan. The commencement of such an implementation results from a favourable assessment of the situation. The implementation of this type of undertaking does not give rise to any special emotions. Emotions arise in the event of problems, and satisfaction when the project is completed. The vision and calm approach is to be found at the managerial level. The respondents who were not managers showed a high level of emotional involvement, and the emotional attitude to the changes implemented was not related to the project phase.

Therefore, we are dealing not so much with a sequence of states, but rather with a dominant emotional state, characteristic of the entire process of change, from its initiation to the completion of its implementation. In the case of managerial ideas, it was the expectation of its implementation, and for employees it was the enthusiasm. In each case, any disruptions to the process were a source of negative reactions.

In the case of employees, the source of positive, motivating feelings was discovering – as the work on the implementation progressed – those subsequent organisational benefits which resulted from them. These discoveries constituted another external factor that respondents attached great importance to. Additionally, in each employee-respondent case the stimulating role of a positive assessment of the idea on the part of the supervisor was emphasised, as well as the interest and support of their colleagues. This may be of particular importance when it comes to organisational factors in the formulation of the idea and their significant impact on the emotional state of the employee. For example, none of the respondents decided to force the implementation against the opinions of their superiors. These factors contribute to extrinsic motivation interactions.

The results of the research leave no doubt that the dominant source of energy for taking action was intrinsic motivation in the form of striving for one's own personal development and testing one's skills (employees), or else implementing a personal vision (managers), which was also perceived in terms of one's own development.

From the cognitive point of view, one particularly effective source of inspiration for taking up the pro-innovation initiative was the overlapping of two streams of knowledge: active participation in the information processes and the exchange of knowledge within the organisation, and the use of external knowledge sources. Knowledge of professional issues, but obtained from various external sources, acted as a catalyst in speeding up the process of generating ideas. Using a wide range of external sources of knowledge also helped define the idea, thanks to many references to different contexts – theories, the practices of other organisations, and current narratives present in the ecosystem of industry blogs, publications, webinars and other sources.

It is worth noting the stability of the structure of the knowledge processes in which the respondents participated. The taking up of a new project, and one's personal involvement in it, which was frequently very intense, did not translate into an expansion of the number of sources of knowledge used by the respondents. This happened in only one case of the sixteen examined.

6. Conclusions

The research has allowed for the identification of two catalysts of pro-innovative behaviour: cognitive and affective. Pro-innovative behaviour is demonstrated by people who actively participate in the functioning of the intra-organisational network of information and knowledge flow. The creation of new ideas is favoured by the enrichment of this knowledge by external knowledge related to the area of the employee's professional activities. The superimposition of these two streams of knowledge, and their mutual interactions, clearly accelerates the process of generating ideas.

If the originators of the ideas are people who do not perform managerial functions, their emotional involvement plays a significant role. This involvement depends not only on those internal factors that allows the originator to see opportunities for personal development and for testing oneself in the implementation of the project, but also on organisational factors: a positive opinion from one's superior about the idea, and support in its implementation on the part of one's colleagues. One motivator of particular importance for the originators is discovering new, previously unnoticed benefits for the organisations arising from the implementation.

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