

# New Idea Generation and Individual Motivation: A Conceptual Framework

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The adoption of specific idea management programs is becoming a strategic asset for organizations, as they are increasingly trying to adopt specific organizational solutions to detect, fertilize, evaluate, and promote new idea generation within and across their boundaries. The centrality of the ideas generation is linked to its vital characteristic of being the main source for new products, services, processes, and drivers of change. This paper copes with the controversial role of the general organizational setting and closely focuses on the rewards mechanisms that could further nurture creativity. By formulating a set of propositions, the paper submits that the understanding of the motivational drivers and the organizational settings is paramount to distill the links between idea generation and incentive structures. This paper aims also to critically analyze and assess the impact of extrinsic and intrinsic motivation on idea generation both at an individual and team level, and develop a framework within which it explores the necessary change to be adopted by firms in managing the idea generation. What is new to the field is the recognition of the impact of the individual locus of control on creative performance. In this vein, the paper sees its ultimate aim in uncovering the dynamics of individual and collective motivation related to creativity, considered as the main source for innovation. The paper concludes that new ideas could be nurtured through the adoption of routine system aligned with the companies' human resource management policy.

*Keywords:* idea generation, motivation, creativity, intrinsic rewards, extrinsic rewards, organization design

## Introduction

The adoption of specific idea management programs is becoming a strategic asset for organizations as they are increasingly trying to adopt specific organizational solutions to detect, fertilize, evaluate, and promote new idea generation within and across their boundaries (Barsh, Capozzi, & Mendonca, 2007; Fairbank & Williams, 2001; Frese, Teng, & Wijnen, 1999; van Dijk & van den Ende, 2002). Ideas for innovation are important for the long-term survival and competitiveness of firms, being the main source for new products, services, processes, and drivers of change. Firms continuously look for new sources of ideas, by considering the organizational context as mechanism for bringing "in" ideas from the external environment ("outside") or finding alternative ways to manage the internal resources. Kanter (1988) defined "kaleidoscopic thinking" as the process of idea

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generation, since it often involves the rearrangement of already existing pieces into a new whole. The sources of innovation can be found anywhere it is possible to access information and new knowledge.

Since the translation of ideas into business process and product/service innovation is vital for firms' sustainability, it is attracting the interest of variety scholars (e.g., Von Hippel & Von Krogh, 2003). Innovation may be considered as the implementation of ideas in useful business. As a consequence, it may have creativity without innovation but not innovation without creativity. The understanding of the link between innovation and creativity requires to focus on how the ideation process works. Amabile (1996) argued that innovation is the successful implementation of creative ideas within each organization.

The topic itself has relevant implications and considers to what extent rewards affect the participation and performance of employees (internal contributors), also considering the fact with different motivation profiles. Managerial practice concerning innovation management processes could benefit from the contribution of supervisors' behavior in governing new idea generation through the usage of rewards, formal recognition, and monetary incentives. In addition, a superior awareness of the counterintuitive effects of extrinsic incentives could help avoid some crowing-out effects.

This paper aims to critically analyze and assess the impact of extrinsic and intrinsic motivation on idea generation both at an individual and team level, and develop a framework within which it explores the necessary change to be adopted by firms in managing the idea generation. In doing so, this paper sees its ultimate aim in uncovering the dynamics of individual and collective motivation related to creativity, considered as the main source for innovation. In particular, the paper explores the potential impact of incentives on individual and collective innovative behaviors.

The underlying assumption of the paper is that understanding of the motivational drivers as well as acknowledging the importance of the organizational settings on the individual learning behavior and idea generation is paramount to distill the links between idea generation and incentive structures. Within the linkage between individual motivation and the organizational context, the Amabile's model (1988) showed how the working environment influences individual's creativity and above all employees' motivation—creativity (C) results from the synergic combination of three main elements: employees' motivation (M), their professionalism (P), and the organizational context (O). The framework reported later in this paper is based on some experiences reported in previous studies, referring to the general concept of new idea generation without paying the necessary attention to the internal dynamics occurring in firms' contexts (Amabile, 1996). Such a contextualization might take place in two different thought correlated directions. The first one relates to innovative reward systems based mostly on non-monetary incentives which can be able to boost the individual creativity; to some extent, the social recognition of innovation might some time overtake some monetary rewards (Shalley, Zhou, & Oldham, 2004). The second aspect concerns the differential impact of reward systems on collective performance, since internal group dynamics and collinearity between individual motivation and contribution to teamwork could lead to unexpected individual reactions to rewards, e.g., switching from the assessment of the input/outcome ratio at the individual level towards the collective one forces to consider additional sources of complexity, such as the inclusion of equity. Further, the move of focus from individual to collective entities calls for a systemic approach to management of innovation.

This paper aims to depict a conceptual framework for understanding the generation of new ideas. Its structure is based on the four upcoming sections. The following section discusses the main organizational dimensions, spanning from the ones related to the general organizational context (information technology (IT),

climate, and routines) to the impact of human behaviors drivers, like motivation. The way such dimensions are illustrated in the section emphasizes the interconnections connecting individual and collective behaviors to creativity. The following section proposes the new conceptual framework that considers the dynamics of new idea generation embedding both the individual and the collective (teams) levels of analysis. Subsequently, the paper proposes a wider discussion that focuses on the possible operationalization of the framework. Finally, the paper draws some conclusions on the feasibility of the ideas submitted, as well as on the managerial implications of a deeper understanding of its dominant dynamics.

### **Literature Review**

The generation of new ideas can be analyzed considering both organizational and individual enablers. The first ones are related to the use of IT, to the organizational climate, and to the group structure. Individual enablers can be instead related to motivational and cognitive elements. The illustration of the different parts of the literature review will be accompanied by a set of consistent propositions, which are going to be eventually recalled and systematized as the conceptual framework.

#### **IT and Creativity**

A relevant issue is linked to the diffusion of solutions of IT supporting the generation of new ideas, namely IT-based tools enacting the interaction among employees. Even when such technological solutions do not contribute to the creation of virtual communities, the mere existence of such possibilities influences the behavioral conduct of people. This is the case of combination of electronic communication tools, designed to support decision-making processes through analysis of alternatives, negotiating and voting (DeSanctis & Gallupe, 1987; Ellis, Gibbs, & Rein, 1991). In particular, IT-mediated relations could lead to different actions from the face-to-face interactions, enabling or constraining cooperative behaviors (Jessup & Valacich, 1993). Similar dynamics occur when competition among individuals is expected. Some side effects could also generate phenomena like production blocking, free riding, sucker effect, and evaluation apprehension (Reinig & Shin, 2002). Moreover, the influence of IT-enabled solution in innovation management generates new needs in terms of human resources systems and practices. Specifically, the whole process of idea generation should be deepened in a more general HR policy embedding both reward systems and general innovation process analysis.

Proposition 1: The availability of IT-mediated solutions might nurture the generation of new ideas through a more intense interaction among individuals.

#### **Organizational Climate and Creativity**

Organizations have high creative output characteristics and specific problems, which are not always categorized. Research showed that for most organizations, the source of innovation takes place within organizational boundaries (Prencipe, 2000), and most significant source of ideas come from employees (Van Dijk & Van Den Ende, 2002). In particular, it seems that most of new ideas for innovation are generated and diffuse by a bottom-up approach, whereas managers help employees spend a part of their time sharing and discussing new ideas. The parallel between individual creativity and organizational climate is necessary to deepen the concept of corporate creativity studied by Lubart and Sternberg (1995). This study, albeit from different perspectives, argues in a similar way that the complexity arising from unpredictable to be perceived as an opportunity for innovation, change, and creativity. In fact, creativity is necessary for evolution, since it

involves changes that can sometimes be radical but mostly incremental (O'Donovan, 2006; Schön, 1974). Innovation thus becomes the most significant moment of the creative process and the organization is not the place where new ideas are generated but rather the context in which you can put them into practice. Further, the concept of creativity is often compared to "self-organization", meant as the ability of organizational units and individuals to originate and maintain relationships, interactions, and links with the external environment to business with or without the use of macro-mechanisms of corporate governance. In fact, very creative companies grant autonomy in internal forces giving rise to the possibility of new forms, new structures, new modes, and new products.

Andriopoulos (2001) summed up the ability of management to stimulate creativity within an organization in five basic elements: (1) culture, (2) climate, (3) the organizational structure and systems, (4) leadership styles, and (5) knowledge/expertise. In this multi-faced scenario, a complex system of equilibriums needs to be found, since the internal organizational context need to balance different contrasting pressures. On one hand, the need for autonomy calls for forms of self-organization, whereas the maintenance of internal of homogeneity of task accomplishment and compliance to organizational culture still calls for some general guidelines and hierarchical relations. To this extent, the parallel with clinical innovation could be exemplary. In such a context, the innovative protocols are developed within some general guidelines and the individual autonomy find its boundaries in the mechanisms of self-responsibility, e.g., a clinician is free to experiment completely unknown paths but, at the same time, he/she is called to carry the burden of any action which is put into place.

Techniques and processes that facilitate and stimulate creativity emergence have grown rapidly (Campbell, 1960; Smith, 1975). Despite the availability of different models and solutions, these techniques and processes seem to consist of "instructions and manipulations, capable of arousing the creative potential of individuals namely when working with others, either face-to-face or mediated by computers" (Pissarra & Jesuino, 2005, p. 276). Creativity flourishes when the organization encourages it, when employees are motivated to think and pursue new ideas, and when the organization provides employees with the resources they need to play with these ideas in generative ways (Amabile, 1988; Ford, 1996; Mainemelis & Ronson, 2006, Woodman, Sawyer, & Griffin, 1993). Mainemelis (2010) studied creative deviance in evolution of new ideas and observed that individual behaviors can be nurtured by personal convincement of the validity of the ideas which results to be stronger than the organizational structural rules. The non-predictable effect of the interaction between organizational encouragement and individual convincement requires the adoption of a systemic approach and the consideration of firms as a creativity and innovation creator.

Proposition 2: The existence of a favorable (internal) climate could encourage the generation of new ideas if its constitutive (structural) elements are consistent.

### **Group Structure and Idea Generation**

In order to stimulate an effective enactment, managers may set up specific solutions for collecting employees' ideas at different organizational levels. In detail, managers might decide how nurture organizational creativity by considering the following elements (Woodman et al., 1993): (1) individual contribution to innovation, (2) importance of reciprocal influence among individuals, and (3) dynamics of social interaction within groups. Differently from IT, which might impact the way individuals refer to the other through virtual media, group structures impact both individual and collective behaviors and eventually performance. The management's role becomes prominent to foster and facilitate collective actions, in fact evidences show that

ideas arising from large and heterogeneous groups are more valid than those resulting from smaller and therefore more manageable groups. Since some people are more creative than others (Amabile, 1983, 1988; Ford, 1996; Guildford, 1950; Woodman et al., 1993), each individual chooses how to contribute to the idea generation. This phenomenon has been theorized by Fishbein and Ajzen (1974) and Ajzen and Fishbein (1980), studying the human behavior within the framework of “reasoned action” and “planned behavior”. These theories argue that the decision to behave in a certain manner is influenced by member’s attitude toward a behavior and by member’s comprehension of norms and perception of the external environment. Individual characteristics, hence, play a large role in influencing whether someone chooses to contribute to the development of a new idea (Garfield, Taylor, Dennis, & Satzinger, 2001).

Some studies by Pissarra and Jesuino (2005) underlined that interaction processes negatively affect the efficacy of the face-to-face groups. They analyzed three relevant phenomena: previous fear, social loafing (free riding), and blocking, concluding that blocking is the main cause of the decrease in efficacy of the face-to-face brainstorming. A recent study by Girotra, Terwiesch, and Ulrich (2010) examined the effectiveness of two different group structures: (a) groups interacting in time and space, sharing a common experience based on information, (b) hybrid groups in which individuals begin working independently without interaction of any kind and lately end up in working together. The evidences showed that hybrid groups perform better than others. In fact, in the hybrid structures, each member can potentially access to different knowledge and can deal with problem solving in different ways. In a second phase, each member shares his/her findings from the individual phase to perform additional exploration together. An alternative group configuration was analyzed by Kavadias and Sommer (2009) that underlined how problem structure and team diversity might influence the quality of the best innovative solution. They studied nominal groups (the same number of individuals generating solutions in isolation) opposed to brainstorming (Osborne, 1953) concluding that nominal groups perform better in dealing with specialized problems, even when factors that affect the solution quality exhibit complex interactions. Team working can produce the relational continuity that is essential to ensure a form of routine to achieve high performance. Teams are based on building solid relationships that tend to resist over time based on frequent and ongoing interactions that allow the actors to meet, share, and create common points of view, and important experiences.

As already noted, the switch of focus from individuals to collective entities (groups) requires further speculation on the subject. Heterogeneous groups in terms of professionalism achieve better results than homogeneous or individuals who work alone (Björk & Magnusson, 2009). Lankau et al. (2007), Milliken and Martins (1996), and Pelled, Eisenhardt, and Xin (1999) coped with the reasons why team member diversity of a non-task nature (as gender-age-race) leads in non-task conflict, while individual diversity of a task nature (as work-education-function) leads to task conflict (Foo, 2009). Nevertheless, heterogeneity and homogeneity do not spring the same effects on all the group configurations and task to be performed. In particular, although a limited amount of diversity is normally preferred, different types of diversity might have opposite effects.

Best results seem to be obtained when potential members, even if coming from different experiences or background, join to the team agreeing to team’s goals and expectations (Foo, 2009), although they tend to be attracted to others with similar backgrounds, to share similar values, attitudes, and interests. Ensely and Hmieleski (2005) described team effectiveness as the degree of collective efficacy in terms of group goals achievement. A particularly hostile situation to deal with is when task accomplishment relies on both convergence and divergence at the same time, e.g., in case of modular innovation. Team performance depends

also on how members work: They may work together in time and space, or they may work as a hybrid structure, first independently—nominal group—then sharing their work together (Girotra et al., 2010). Considering the Thompson's inter-task relations (1967), in case of sequential relations, the transfer of knowledge among individuals flows with the path of collaboration. The situation in which individuals are bound together by mutual interconnections appears instead more difficult to be managed.

In knowledge-creation teams, the individual contribute by exploiting their repertoire of skills, whereas the organization define the strategies—that by definition effect and are affected by the situation—for using and combining such repertoires (C. Gore & E. Gore, 1999). So, individuals' actions are very important for continuous innovation and improvement. Innovative work behavior (De Jong & Den Hartog, 2010) aims to achieve the initiation and intentional introduction of new and useful ideas, processes, products, and procedures (Farr & Ford, 1990). It differs from employees' creativity, as stated by Amabile (1988), because it also includes implementation. Implementation requires an intensive effort and a result-oriented attitude for organizations. Innovative work behavior can be engaged allowing employees to contact more diverse views and influences that may help spark and creativity. Perry-Smith and Shalley (2003) developed propositions on the association between social relationship and the related construct of creativity.

The different configurations of groups so far exposed in this paragraph explain how different combination of individuals could create internal organizational contexts in which the generation of new idea could blossom or perish according to the equilibriums towards which such contexts converge. Nevertheless, the analysis of the impact of different reward systems could not ignore the link between creativity as an outcome and motivation as the main input of the innovation processes.

Proposition 3: Group structure could favor the blossom of new ideas depending on the nature of the task and on the final goal of the organization.

### **Creativity and Motivation**

The understanding of the link between creativity and motivation needs to be explored through the analysis of how intrinsic and extrinsic incentives (e.g. Porter & Lawler, 1968) might impact new idea generation. While the role of intrinsic motivation (and incentives) appears to be predictable, the role of extrinsic motivation seems to be controversial on new idea generation and the creativity process over time. Starting from the consideration that motivation is the initial force that reflects the direct activation of a goal, two forms of related incentives need to be recalled in order to study creativity processes (Amabile, 1983).

**Intrinsic motivation.** It is linked with basic and advanced needs (Maslow, 1954)—takes place when an individual feels the pleasure of doing some activities, without external rewards. It includes: (1) the need for achievement and (2) the need for learning/knowing. In this sense, Herzberg (1959) underlined that each appreciation and each award of merit from top management is a very strong motivation for every individual. More recent studies confirm that the best gratification for employees is to admire own ideas implemented. Dworkin (1988) referred to autonomous motivation: Autonomy involves acting with a sense of volition and having the experience of choice, it means endorsing one's actions at the highest level of reflection. Intrinsic motivation is an example of autonomous motivation (Gagné & Deci, 2005; Festré & Giustiniano, 2011; Cavaliere & Lombardi, 2014).

Proposition 4: The actual implementation of his/her own ideas could help individuals develop higher motivation in their (creative) activities.

**Extrinsic motivation.** Conversely, it is linked to the organizational consequences rather than to the actions. “It requires an instrumentality between the activity and some separable consequences, such as tangible or verbal rewards, so satisfaction might not come from the activity itself, but rather from the extrinsic consequences to which the activity leads” (Gagné & Deci, 2005, p. 331). The analysis of the impact extrinsic incentives have on creativity is quite controversial: Sternberg and Lubart (1995) in an effective metaphoric way stated that extrinsic motivation is to creativity “what strychnine is to orange juice”. From a different perspective, Amabile (1988) drew the same conclusion by stating that monetary incentives in exchange of new ideas induce individuals to be interested in money and not towards innovative ideas, so they will be looking for safe and rapid solutions to gain money.

The above mentioned elements lead to an apparent paradox, rooted in the idea that extrinsic incentives would constrain creativity, for instance, Amabile, Conti, Coon, Lazenby, and Herron (1996) showed that students creativity in exchange for a premium (or bonus) was lower and less effective (innovative) than students creativity without any reward. Further, as interestingly noted that by Rossman (1931) through an experiment based on 700 inventors on the biggest motivating elements to create and study new ideas, extrinsic motivation could play a role in developing new ideas. By analyzing such evidences, it seems that humans find “need to gain” and “need to get better” above “love to invention” and “desire for personal growth” which contradicts the Sternberg and Lubart’s model (1995). Deci (1971, 1975) tested the additivity hypothesis that tangible extrinsic rewards undermined intrinsic motivation whereas verbal rewards enhanced it, thus implying that intrinsic and extrinsic motivation can be both positively and negatively interactive rather than additive.

Proposition 5: The consistency of extrinsic positively impacts individual motivation.

### **Cognitive Factors and Creativity**

Cognitive evaluation theory also suggested that external factors, such as tangible rewards, deadlines (Amabile, DeJong, & Lepper, 1976), surveillance (Lepper & Greene, 1975), and evaluations (Smith, 1975) tend to diminish feelings of autonomy and undermine intrinsic motivation. In contrast, some external factors, such as providing choice about aspects of task engagement, tend to enhance feelings of autonomy and increase intrinsic motivation (Zuckerman, Porac, Lathin, Smith, & Deci, 1978). In fact, feelings of competences as well as feelings of autonomy are important to nurture intrinsic motivation. The adoption of the wider organizational perspective does not help either: On one hand, the process of ideation should be considered by organization as part of their business and consequently should be paid by usual rewards; on the other hand, contrarily, when ideas are directly rewarded, the ideation process could be perceived as an extra-work activity.

The analysis of some recent contributions coming from the economic and psychological fields justifies the existence of a “crowding out” effect of extrinsic incentives on the intrinsic ones (Festré & Giustiniano, 2011; Cavaliere & Lombardi, 2014). In actual facts, the possible detrimental effect of extrinsic motivation on performance can be found on the extension of the Self-Determination Theory (SDT) made by Gagné and Deci (2005), starting from the assumption that human behaviors are driven by three main innate psychological needs: competence, autonomy, and relatedness. The novelty of such approach relies on the fact that psychological needs can be fostered or undermined by the external social context. To this extent, the process of internalization of extrinsic motivation leads to the equivalence between extrinsically motivated behavior and autonomy. According to SDT, there are three main ways of “regulation”, defining different “degrees” of extrinsic motivation (Gagné & Deci, 2005): (a) introjection: Regulations are followed but not accepted by the agent (e.g.

acting in order to feel valuable or to avoid penalties); (b) identification: Individuals perceive greater freedom and volition, since the overlapping between the expected behavior and the individual cultural and motivational basis; and (c) integration: When the identification involves other aspects of oneself (beliefs, interests, and values), the required activity itself becomes instrumental for the achievement of personal goals, while still being considered as extrinsic motivation. The usage of SDT for analyzing innovative behaviors conducts to two main managerial implications: (a) Intrinsic and extrinsic incentives can be considered as a continuum of possible states within the underlying needs driving the human behavior; (b) extrinsically motivated behavior can be efficient, when an external regulation has been internalized; in such cases, extrinsically motivated behavior will end up in a higher autonomy; and (c) as a consequence, control based on regulation rather than on the external influence exercised by a principal may be efficient because of the cognitive feedback gained by the agent (which nurtures the need for competence). Ultimately, different regulatory styles are in their turn consistent with a gradation of perceived loci of causality from impersonal and external to internal perceived locus of control. As for the managerial implications, it is possible to argue that in pure innovative contexts (e.g. creative activities), the internal locus of control and the self-determined behavior is compatible with relevant regulatory processes based on interest, enjoyment, and inner satisfaction. When innovation takes instead place within codes of conducts and general guidelines (e.g. clinical innovation), extrinsic motivation should be compatible with the self-involvement of agents.

Proposition 6: The individual cognitive evaluation of the task and the perception of the locus of control influence the (motivational) impact of both intrinsic and extrinsic rewards. In this sense, the higher the consistency is between loci of control and regulatory styles, the more the individual could react to intrinsic and extrinsic stimuli with generation of new ideas.

### **Conceptual Framework**

The previous section described the several elements that were taken in consideration as organizational dimensions. The underlying assumption was to describe their impact on creativity without considering their mutual interdependence. The framework proposed in Figure 1 tries to overtake such an assumption by distinguishing between organizational context and individuals' attitudes. Considering the set of propositions 1-3 IT-mediated solutions, internal climate and group structure could have a potential positive impact on creativity. Despite the acknowledgement of mutual interaction, the framework keeps the assumption of their independence in order to simplify the framework itself, believing that the interlacing facets could only boost the existing positive impact on creativity (e.g. positive internal climate in which could enable a more diffused use of IT solutions). So far it is hence quite clear that if organizations invest in such elements, or at least in the direction addressed by the propositions, the relative management programs should be more capable to fertilize the generation of new ideas and/or reduce the leaks in the innovation processes.

While the organizational dimensions are still kept separate, the loop (interaction) rewards-motivation could still explain the individual behavior. On one hand, there is no doubt that creative performance is a sub set of the outcome of the general organizational conduct. Innovation comes out of motivated behaviors rather than from pure creative pulse—excluding a minor part given to pure improvisation. If so, the impact of intrinsic and extrinsic rewards cannot be ignored. Hence, considering the mere individual-organization dyadic relation, creativity could be nurtured by a proper system of rewards governance.

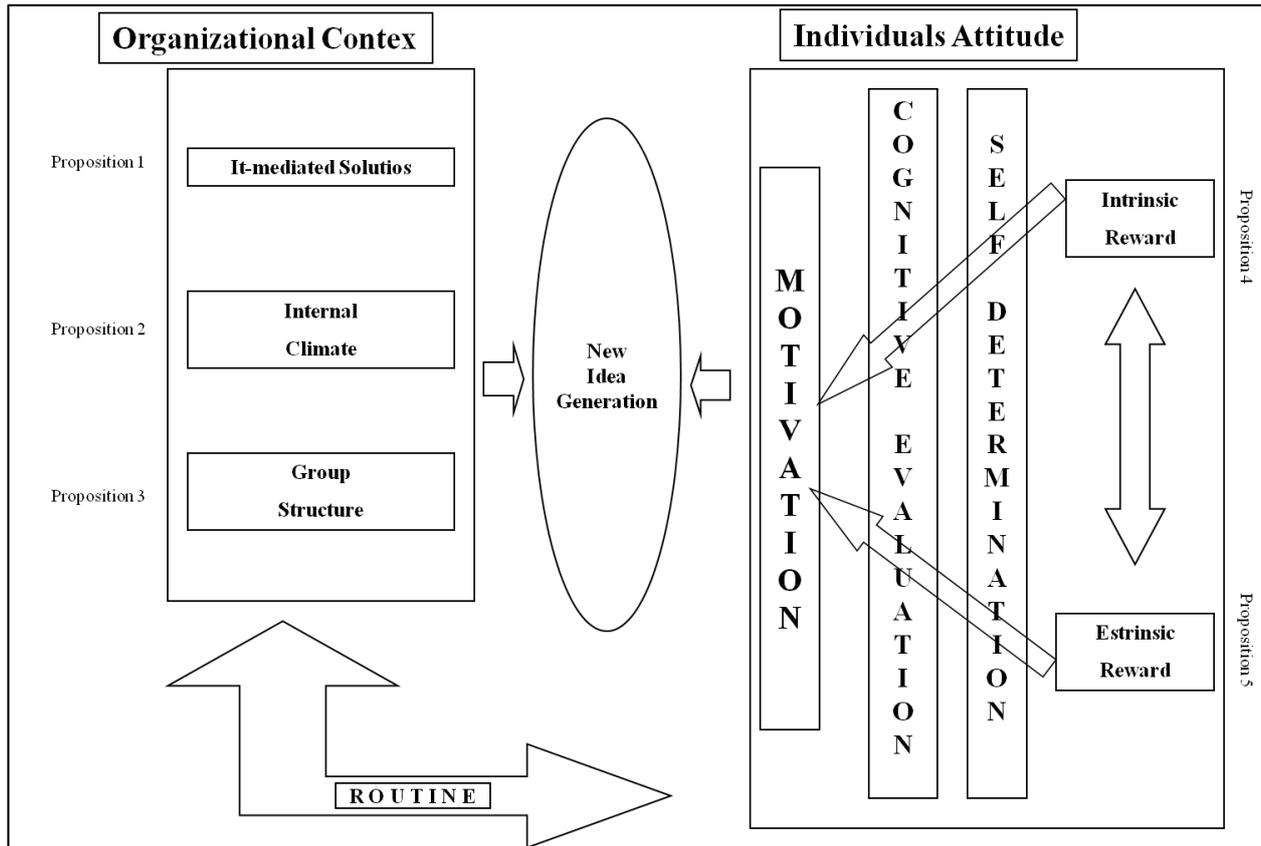


Figure 1. The conceptual framework.

What is new to the field is the recognition of the impact of the individual locus of control on creative performance. Following Gagné and Deci (2005), self-determination and cognitive evaluation could both moderate the impact on motivation to creativity. In particular, the consideration of the self-determination of individual behavior could be addressed, although not predicted, by considering the impact of the diverse forms of incentive alongside with the level of autonomy. By having that in mind, it is possible to consider how various creative tasks (and their specific organizational settings) could be designed and managed consistently with the expected organizational outcome in terms of new ideas generation. Such an approach preserves the consideration that ideas are products of mental activities which take place before their actual representation.

The translation of such mental activities (generate with specific loci of control) could be further mediated by the cognitive evaluation of the author (employees/contributor). In such sense, the usefulness of the idea itself could be considered as a pure and mere individual activity subject to the pressure exerted by the intrinsic and extrinsic rewards. Namely, the very same idea could generate different utilities over diverse individuals, or over the same individual over time, for example, the execution (implementation) of his/her own idea could be the main (and ultimate) source of motivation/satisfaction; in other cases, the fact that such an idea could be considered valuable by the external referent network (e.g., the relevant scientific or professional community) could be considered farther more important than any extrinsic rewards. The fact that some companies are creating internal discussion groups and knowledge groupware for idea sharing and filtering acknowledges that cognitive evolution does matter for the individual enactment. Finally, in such a setting, organizational routines

could represent a very powerful way by which manager could nurture creativity and link the organizational setting to the (expected) individual behaviors. The following paragraph will spoil on such idea.

### Discussion

Some further discussion on the conceptual framework can be stimulated by considering the idea of human enactment. As many other practices related to human enactment, it is useful to recall the notion that the circular loop “(expected incentive)<sub>0</sub> → motivation<sub>0</sub> → performance (creativity)<sub>0</sub> → (actual) incentive<sub>0</sub> → motivation<sub>1</sub> ...” is not affected only by the “psychological contract” that ties a single individual (A) to the organization, but that the subjectivity of the evaluations calls for the concept of perceived equity (Adams & Freedman, 1976). It means that, both for individual and collective behaviors, each individual does not consider only what he/she receives from the enterprise (outcomes A), as a result of his commitment (input A), but tries instead to observe this relationship comparing it with other workers he considers equal/similar to himself (outcomes B/input B) (Adams & Freedman, 1976). In case of a perceived iniquity, whatever is the perceived incentive, the behavior of the individual (A) is not sure to reach the expected performance (creativity). Moreover, since the processes of goal reaching (Frey, Benz, & Stutzer, 2004) generate a further procedural utility, the organizational context (locus of causality, regulatory process, relationship with colleagues, available technologies, and relationship with superiors), and human resources management is a relevant part of the incentive. Particularly interesting is the fact that when the corporate context is considered positive by the workers, individual behaviors are not limited to the ones that Katz and Kahn (1978) have labeled as “productive” behaviors (result achievement), but on the contrary it is possible to start some “innovative” and “cooperative” behaviors that are summed to the previous ones. Such a consideration could solve the dilemma appearing between individual creativity and organizational compliance (culture, structure, and etc.). In this sense, the organizational context is potentially capable of generating internal relational economies based on shared procedures, knowledge, experiences, and solutions; in order to generate a organizational context capable of stimulating these kinds of intrinsic incentives and spontaneous behaviors, a relational leadership that enhances such a cognitive capital becomes indispensable.

### Conclusions

This paper aimed at evaluating the impact of extrinsic and intrinsic motivation on idea generation both at an individual and team level. In order to do that, a conceptual framework was deduced from previous studies and present. The paper does not solve the paradoxes reported by the literature and without a systemic empiric research, few more speculations could be conducted on the subject. Notwithstanding its inner limits, the paper sheds some light on many grey areas and draws some propositions that could be helpful for both further research and managerial practice. The cornerstones for future research could be synthesized in the individual perception of such incentives and the general organizational setting in which creativity take place. In actual terms, some routines could be designed with the aim of stimulating the effective (and efficient) deployment of creativity. In such a sense, organizational routines could be meant as “regulatory processes” that complement the intrinsic motivation with some monetary incentives. Such incentives are meant to be used in order to amplify the positive effects of feedbacks on the employees’ morale. In short, creativity itself does not contradicts the evidence by which extrinsic incentives could boost performance; it is, on the contrary, the organizational context in which creativity takes place that calls for proper mechanisms (incentive structure)

(Alexy, Criscuolo, & Salter, 2012). Such an approach relies on synergic usage of extrinsic incentives as described in the Amabile's work (1996), and also tries to provide other implementation elements. Further, other unexplored areas rely on the links between intrinsic and extrinsic incentives in teamwork. On this point, Ancona and Caldwell (1992) noted that in organizational teams, subjective ratings sometimes determine promotions, future job assignments, and performance evaluations. It could be debatable, if the social "mutual" control taking place in creative context recalls somehow the idea of clan control introduced by Ouchi (1979). Further research in such vein could be useful to the task.

In conclusion, the paper suggests that, once considered motivational and behavioral implications analyzed, the creation of a whole and inner coherent system of routines that regulates the generation of new ideas could be more effective, if rooted in the wider practice of human resources management and policy, since it could amplify the effect of both intrinsic and extrinsic incentives. The theoretical contributions explored in this paper seem to confirm the paradox related to the impact of rewards on new idea generation which could not be solved straightforward, but only be mitigated by assuming a specific organizational and strategic direction: the alignment between the innovation practice and the human resources policy.

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