

# Innovation Management and an Innovative Ideas System

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Innovation management is one of the most important tasks for managers in order to make their organizations successful and efficient. A part of this ranges from innovative employee ideas for small everyday improvements up to innovations that bring enormous savings. The survey tries to determine which factors influence the number of innovative ideas and to propose methods for improvements in this area. The basic research method used was a questionnaire, which helped us gather data and the basic method used for data processing was statistical analysis. First, we established that there is a progressive correlation between the number of innovative ideas submitted in the past and the number of anticipated innovative ideas in the future. Second, we established that the following three factors have an impact on innovation and creativity: (1) work and education; (2) working and living conditions; and (3) rewards and payment. Finally, we have established that there is a correlation between satisfaction with the rewards and payment factor and the current life-cycle stage of organization. To summarize, the level of innovation and creativity of employees is influenced by their overall satisfaction in an organization.

**Keywords:** innovative ideas, usable proposal, innovation, innovation management

## 1 Introduction

Roberts (2007) argues that innovation is composed of two parts: "(1) The generation of an idea or invention; and (2) the conversion of that invention into a business or other useful application." Creativity, innovation, knowledge and learning are becoming the most important elements of competitiveness in the market. Organizations that are not capable of remaining competitive will fail. Therefore it is necessary for an organization to take advantage of every opportunity; and one of the most important ones is innovation. It can be divided into two categories: (1) innovation as part of research and development (R&D); and (2) innovation as everyday innovative ideas (II) i.e. usable proposals by all employees. Our survey will concentrate on the latter which, however, can significantly contribute to the effectiveness and efficiency of operations. Our research problem, i.e. research question, is the failure and inefficiency of the innovative ideas system – and the necessary steps to improve the situation.

The objective of our research is to develop a questionnaire, carry out a survey, make a statistical evaluation of the questionnaire results, identify the shortcomings of the innovative ideas system and, especially, to make proposals for improvement. A survey was the basic research method used and statistical analysis the basic tool used.

There are many foreign and Slovenian works on innovation and innovation management. However, authors mostly deal with R&D as one of the business functions of organizations; innovative ideas are rarely dealt with here. In addition, no recommendations or standards exist in this area, so every organization organizes innovative ideas in its own way. Especially problematic is the calculation of financial bonuses, the cause of many disputes and lawsuits.

There are two extremes in organizing innovative ideas. In some organizations – especially smaller ones – a system does not exist. They believe that submitting innovative ideas is an integral part of an employee's duty and that there is no reason for an extra reward, since it is already an integral part of the salary. Some organizations foster a high affiliation culture for employees and have introduced a flexible part of the salary which depends on innovations. Other organizations have introduced an innovative ideas system in a very consistent manner and in this way encourage their employees. The fundamental problem here is the definition of an employee's work obligation and the description of an innovation which requires a special financial or non-financial reward and finding a way to do it.

We will be treating innovative ideas as part of innovation, so we defined the following three research hypotheses:

- (1) Hypothesis 1 (H1) – The more innovative ideas were submitted by employees in the past, the more there will be submitted in the future. This assumption is derived from the spiral of personal development of each individual – the more we develop and progress, the more we strive for new achievements.
- (2) Hypothesis 2 (H2) – The number of innovative ideas depends on rewards, the nature of the work and environmental conditions. Tangible and intangible rewards, creative, innovative and dynamic work and good conditions of professional and private life are the basis for creative thinking and work which consequently improves results.
- (3) Hypothesis 3 (H3) – Employee satisfaction with rewards depends on the current life-cycle stage of an organization. We talk about the birth phase after the establishment of the organization, followed by the period of progressive growth, then comes the period of maturity, i.e. quiet progress, and lastly the phase of decline. We assume that organizations in the final phase of their life-cycle, i.e. a decline of activity, are much less interested in investing in employees, thereby significantly worsening the working conditions and consequently the satisfaction of employees.

A theoretical framework of innovative ideas is presented in the second chapter; the methods of research in the third chapter; chapter four deals with the statistical results of the survey; in chapter five suggested improvements are introduced. In the conclusion our findings are summarized.

## 2 Literature review and theoretical framework

Tidd (2001) divides innovations into: (1) disruptive; (2) radical; (3) complex; and (4) continuous incremental innovation; innovations having an impact on: (1) process; (2) product; and (3) service. Innovation management is critical for the efficiency and effectiveness of organizations. This close link makes it necessary for top management to ensure the successful and efficient operation of innovation process management (Cormican and O'Sullivan, 2004; Ernst, 2002). Analysis of correlation between innovation and performance is a complex task (Feeny and Rogers, 2003). Adams, Bessant and Phelps (2006) list seven categories of innovation management measurement: (1) inputs; (2) knowledge management; (3) innovation strategy; (4) organization and culture; (5) portfolio management; (6) project management; and (7) commercialization. Nineteen sub-dimensions are identified within each category. Mathisen and Einarsen (2004) propose two instruments for measuring work environments for creativity and innovation: (1) KEYA – Assessing the Climate for Creativity; and (2) Team Climate Inventory.

Hidalgo and Albers (2008) argue that different innovation management techniques enable faster incorporation of new technology into processes and products, as well as faster organizational changes. Innovation is not random, organizations must pay a lot of attention to innovation in order to remain competitive in this area (Christensen, 2002). Thompson (2004) argues that innovation and enterprise have a number of consti-

tuent elements: (1) ideas – spin-off points; (2) infrastructure – premises, incubators, suppliers, venture capital, corporate resources, etc.; (3) networks – support structures and effective enablers; (4) educated and capable people – to help with the growth of the initiative or business; and (5) – the entrepreneurs and innovators themselves.

An innovative ideas system is important for organizations for two reasons: (1) generated savings contribute to a more successful business; and (2) encourage creative and innovative thinking and actions of employees. In Slovenia there is still a wide way to go to an innovative society. Shingo (2007) states that an employee in Japan on average submits twenty-four improvements every year. Andrew, DeRocco and Taylor (2009) classify Japan into ninth place among innovative countries and Slovenia into thirty-third. Stanovnik et al. (2008) note that in comparison with the EU, Slovenia is lagging behind in the area of innovation productivity. In our study we calculated that respondents on average have submitted less than five innovative ideas per year. This shows that there are many opportunities in this area. The level of organization in the area of innovative ideas can be most easily assessed by calculating the number of innovative ideas per employee. This method is most suitable as innovative ideas usually do not bring big savings and savings are also not calculated in detail.

In large organizations the innovative ideas system is complex. Typically there has to be a separate department responsible for the coordination of innovation. There has to be a policy that precisely defines the rules of operation. The most important part of the policy is the calculation of savings and rewards. An IT support system is also important for successful operation. However the most important are adequately trained leaders who can motivate employees, as this will achieve significantly better results compared to impersonal labour delegation. Kotter (2001) states that the leader has to be capable of: (1) developing a vision; (2) coordinating the staff; and (3) motivating and inspiring the staff. True leaders focus on the future, just solving daily problems no longer suffices in today's market conditions. A creative and innovative climate plays an important role with all employees being an integral part of this climate.

Bukovec (2009) believes that modern organizations must cultivate values enabling the establishment of communication that will provide a unique and clear understanding of tasks, while motivating employees to make innovation a part of every job they do. In this way, innovation and greater added value become an integral part of every product. In connection with this, Amabile (2010) highlights the following motivating factors: (1) receiving recognition for a job well done; (2) incentives and rewards; (3) mutual help; (4) supporting their own development; and (5) precisely defined objectives. Progress created by employees is the best motivator – challenges are also important. Skarzynski and Gibson (2008) put forward four factors that enable innovation: (1) education for innovation, including a wide range of employees; (2) new technology; (3) coaching and mentoring, performed by leaders and specially trained internal or external collaborators; and (4) rewards and recognitions. Facilitators of innovation – at three levels of analysis – summarized by Anderson, De Dreu and Nijstad (2004) are: (1) individual level – personality, motiva-

tion, cognitive ability, job characteristics and mood states; (2) work group level – team structure, team climate, team member characteristics, team processes and leadership style; and (3) organizational level – structure, strategy, size, resources and culture. Jones and Chung (2006) identify three burnout constructs: (1) de-personalization; (2) personal achievement; and (3) emotional exhaustion; and eight turnover constructs: (1) overall job satisfaction; (2) goals; (3) comfort; (4) challenge; (5) financial rewards; (6) relationship with co-workers; (7) resource adequacy; and (8) promotions. Katz (2005) summarizes five professionals' orientation priorities: (1) skill variety – to learn and develop new skills and abilities; (2) task identity – to become a contributing member of the profession; (3) task significance – to work on projects that are exciting within the profession; (4) autonomy – operational autonomy; and (5) feedback – objective data and information processes. At the same time Kubo and Saka (2002) summarize motivation of knowledge workers into three categories: (1) monetary incentives; (2) human resource development; and (3) job autonomy.

### 3 Research Method

#### 3.1 Questionnaire

The basic research method used is a survey based on a questionnaire with ten questions. In the first type of questions the respondents were asked to provide their answers in the form of a five point Likert scale ranging from 1 to 5. These were followed by questions with several possible responses, in which the respondents were also asked to answer according to the before mentioned scale where they express their opinion from full disagreement to full agreement. These answers are treated as ordinal variables. The next type of questions are open questions with answers in the form of numeric values. These variables are treated as scale variables. The last type are also closed questions with several possible responses – these variables are nominal. The survey questions and possible answers are derived from literature:

- (1) How useful or necessary is the innovative ideas system in your organization?
- (2) How does the innovative ideas system currently function?
- (3) How should the system function in the future?
- (4) How many innovative ideas have been submitted by employees in the last three years?
- (5) How many innovative ideas will be submitted by employees in the next three years (an estimate)?
- (6) How much do individual factors influence the number of submitted innovative ideas?
- (7) How much do individual factors influence the satisfaction of employees in the organization?
- (8) How much do individual factors influence the profitability of the organization?
- (9) How far are you satisfied with individual factors and what are your wishes for the future?
- (10) In which phase of the life-cycle is the organization?

#### 3.2 Population, sample and survey

The sample is completely random. Part-time students of post-secondary vocational schools from Novo mesto, Ljubljana and Ajdovščina were chosen for the survey. The period of study of respondents is two years after secondary school. The respondents were studying the following programmes: Mechanical Engineering, Environmental Engineering, Electronics, Transport and Logistics, Computer Science and Woodworking. All respondents are employed in manufacturing (66%) or service (34%) organizations. The average age of respondents is 32 years, ranging from 21 to 53 years. The average employment period is 12 years, from beginners to those with 34 years of employment.

The target population are employees in the most creative period of their lives, with secondary education, with around twelve years of employment and the desire for additional education and promotion. The study results on the basis of the sample can be generalized to the general population with similar characteristics.

The questionnaire was completed by 70 respondents – they are the sample. Not all questionnaires were filled in properly, so we will treat the variables with missing values individually, depending on the statistical analysis used.

### 4 Results

#### 4.1 Introductory remarks

The survey results were obtained through descriptive statistics, frequency statistics, regression statistics, comparison of averages and factor analysis. Statistics were recorded in accordance with the recommendation of the American Psychological Association (APA), numeric values in the text are given with an accuracy of two decimal places. The effect size is denoted by  $r$ , which is small at 0.1, medium-sized at 0.2 and large at 0.3. Pearson's correlation coefficient is also denoted by  $r$ . Significance is denoted by  $p$  and defined at 0.05, i.e. 5%. If only  $p$  is given, we have a two-tailed test i.e.  $p(2\text{-tailed})$ , a one-tailed test is denoted by  $p(1\text{-tailed})$ .

#### 4.2 How the innovative ideas system functions

In the first question the respondents were asked how useful, i.e. necessary, they find the innovative ideas system in their organization, in the second question they were asked whether they were satisfied with the current situation in the area of innovative ideas and in the third question how should the system function in the future. Mean ( $M$ ) of the first response is 4.48, the second  $M = 2.90$  and the third  $M = 4.64$ . The results of descriptive statistics are summarized in Table 1. The findings correspond to the sample.

Table 1: Descriptive statistics of innovative ideas (II)

	N	Mean	Std. Dev.	Std. Error
<b>Necessity of II</b>	69	4.48	0.720	0.087
<b>II current functioning</b>	69	2.90	1.087	0.131
<b>II future functioning</b>	67	4.64	0.644	0.079

There is a substantial gap between the actual and desired situation, so we will check whether this difference is statistically significant. Since both variables are ordinal we selected the non-parametric Wilcoxon's signed-rank test. Variables are dependent, since all respondents answered both questions. Assessment of the current state of the innovative ideas system is low with median (*Mdn*) of 3; the desired state being assessed with *Mdn* = 5. Wilcoxon's signed-rank test statistics can be written in the form of  $T = 9.5$ ,  $p < 0.001$ ,  $r = -0.82$ , with the corresponding  $z$ -test ( $z = -6.7$ ,  $p < 0.001$ ); we can reject the null hypothesis and confirm the statistically significant difference between means.

### 4.3 The number of innovative ideas

Respondents were asked how many innovative ideas have been submitted in the past three years and what was their estimate of submitted innovative ideas in the next three years. With the fourth and fifth question we checked whether there were any patterns in the data. Using scatterplot and a regression line we established that there is a correlation between the variables – the more innovative ideas we had in the past, the more we will have in the future. This assumption can be proven by regression statistics. In the first step, we calculate the correlation coefficient between the innovative ideas made in the past and the projection for the future. It is expressed by Pearson's correlation coefficient  $r = 0.92$ , confirming very strong correlation. The regression model is constructed in such a manner that we can explain 84% of innovative ideas in the future by their number in the past, while the remaining 16% can be explained by other influences as  $r^2 = 0.84$ . An  $F$ -test was also performed and can be written in the form of  $F(1) = 301.02$ ,  $p < 0.001$ . Table 2 contains the regression coefficients  $b_0 = 1.58$  and  $b_1 = 1.18$ . The correlation between variables is

progressive. The regression equation can be explained in the following way: if an employee did not submit any innovative idea in the past three years, he will submit an average of 1.58 innovative ideas in the next three years; if he submitted a certain number of innovative ideas in the past three years, he will on average submit 1.58 innovative ideas, plus an additional 18.2% more than in the previous three years. This confirms our first hypothesis (H1) about the progressive number of innovative ideas.

### 4.4 Factors affecting the number of innovative ideas

We asked the respondents which factors influence innovation in an organization. Instead of using a direct question about these factors, we decided to use three closed indirect questions. Each of these three questions lists thirteen factors, the influence of which needs to be evaluated i.e. ranked from 1 to 5. Questions six, seven and eight are: (1) How much do individual factors influence the number of submitted innovative ideas; (2) How much do individual factors influence the satisfaction of employees in the organization; (3) How much do individual factors influence the profitability of the organization? This can be called the innovation and creativity model of the organization, which is established through the use of three parameters: (1) the number of innovative ideas; (2) employee satisfaction; and (3) profitability of the organization.

We create thirteen data constructs, as each element belongs to three questions. Non-parametric correlation coefficient Kendall's tau ( $\tau$ ) is greater than 0.2 in all cases, which is sufficient for further analysis. Internal consistency of constructs is checked by Cronbach's coefficient  $\alpha$ , which is greater than 0.5 in all cases, which is still acceptable. For the purpose of the factor analysis, we create thirteen variables from data of constructs by calculating mean of the individual factors for all three questions. Variables and results of factor analysis are shown in Table 3.

Primary analysis was performed on the basis of thirteen variables with orthogonal rotation (varimax). The appropriateness of the sample for factor analysis was confirmed by Kaiser-Meyer-Olkin's test:  $KMO = 0.81$ , which is very good. The Bartlett's test of sphericity ( $\chi^2(78) = 946.94$ ,  $p < 0.001$ ), confirmed that the correlations between variables are strong enough. With further analysis, we checked eigenvalues for all variables. Three factors had eigenvalues over Kaiser's

Table 2: Regression statistics' coefficients of number of innovative ideas

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
<b>(Constant)</b>	1.578	1.467		1.077	0.286
<b>Number of innovative ideas submitted</b>	1.182	0.068	0.917	17.350	0.000

Regression equation: (Number of II in the next 3 years) = 1.58 + 1.18 x (Number of II in the last 3 years)

Table 3: Factor analysis of factors affecting the number of innovative ideas

	Work & education (Factor 1)	Working & living conditions (Factor 2)	Salaries & awards (Factor 3)
1) Access to new technologies	0.812		
2) New work challenges (creative work)	0.783		
3) Orderly working environment	0.752		
4) Specialized courses (education)	0.701		
5) Performing important tasks	0.668		
6) Possibility of work from home		0.819	
7) Flexible working time		0.799	
8) Minimum time to get to work		0.711	
9) Balance between work and private life		0.591	
10) Financial rewards			0.873
11) Salary			0.818
12) Recognition (prize) by managers			0.609
13) Promotion chances			0.559
Eigenvalues	3.10	2.42	2.39
% of variance	23.86	18.63	18.41
Cronbach's Alpha	0.76	0.82	0.74

criterion of 1 and this combination accounts for 60.9% of the variance. Given the sample size, the convergence of the screeplot and Kaiser's criterion, we can conclude that the three factors determined were appropriate. Table 3 shows factors after rotation: factor 1 represents the work end education opportunities, factor 2 working and living conditions and factor 3 salaries, bonuses, recognitions and promotion chances. Finally, we checked the factor's reliability with Cronbach's  $\alpha$  test and confirmed hypothesis (H2).

#### 4.5 Satisfaction with influence factors

In the previous chapter we defined three factors affecting the number of innovative ideas: (1) work, (2) conditions; and (3) rewards. The ninth question served to determine the current satisfaction of employees and preferences related to these factors. Again we used the thirteen variables from Table 3, which are related to three factors of influence. Frequency sta-

tistics are given in Table 4. With Wilcoxon's signed-rank test we confirmed that a significant difference of means between dependent variables exists: (1) between satisfaction with work and desired work,  $Mdn = 3$  and  $Mdn = 5$ ; (2) between the current and desired working and living conditions,  $Mdn = 3$  and  $Mdn = 4$ ; and (3) between the satisfaction with rewards and desired rewards,  $Mdn = 3$  and  $Mdn = 4$ . Wilcoxon's signed-rank test statistics of differences for all three cases can be given in the form of  $T = 425$ ,  $r = -0.77$ ,  $T = 169.5$ ,  $r = -0.72$  and  $T = 358.5$ ,  $r = -0.56$ , with  $p < 0.001$  in all cases and the corresponding  $z$ -tests of  $z = -12.84$ ,  $z = -13.53$  and  $z = -9.38$ , statistical significance is always  $p < 0.001$ . Interestingly, the biggest gap between current and desired situation has the work factor regarding median, and rewards factor regarding mean.

Respondents replied to the tenth question that 20 organizations were in their growth life-cycle phase, 34 in the phase of maturity, 16 in the decline phase and 0 in the birth phase. We checked whether there existed a correlation between life-cycle phase of the organization and employee satisfaction

Table 4: Frequency statistics of work, condition and rewards factors

	Work (current)	Work (desired)	Conditions (current)	Conditions (desired)	Rewards (current)	Rewards (desired)
Mean	3.19	4.39	3.30	4.09	2.68	4.15
Std. Deviation	1.197	0.725	1.356	1.092	1.166	0.907
Std. Error of Mean	0.064	0.039	0.081	0.065	0.070	0.054
Median	3.00	5.00	3.00	4.00	3.00	4.00
Mode	3	5	5	5	3	5
Minimum	1	1	1	1	1	1
Maximum	5	5	5	5	5	5

with the reward factor. We used non-parametric comparison between independent groups, i.e. Kruskal-Wallis' test. Statistics can be written as follows:  $H(2) = 20.16$ ,  $p < 0.001$ , thus confirming that there are significant differences in satisfaction depending on the life-cycle phase of the organization. For a more detailed analysis we used the Mann-Whitney's test. We established that the difference in satisfaction between employees who work in organizations in the growth phase ( $M = 2.87$ ) and maturity phase ( $M = 2.84$ ) is very small ( $U = 5236$ ,  $r = -0.01$ ,  $p > 0.05$ ). However there is a significant difference in satisfaction between those employed in organizations in the decline phase ( $M = 2.11$ ) and those in the growth ( $U = 1579.5$ ,  $r = 0.33$ ,  $p < 0.001$ ) or maturity ( $U = 2826.5$ ,  $r = 0.28$ ,  $p < 0.001$ ) phase. This confirms the third hypothesis (H3). There are even greater differences in the work factor, while the differences in the factor working and living conditions are smaller.

## 5 Discussion of research results

### 5.1 Comments on individual survey questions

Based on the responses to the first question – which is considered the model – we can conclude that respondents attach high importance to an innovative ideas system ( $M = 4.38$ ). The task of the management is to unlock and exploit this potential.

Respondents assessed the current state of the innovative ideas system as poor ( $Mdn = 3$ ) but they are very optimistic ( $Mdn = 5$ ) and strive for improvement. The findings of the second and third questions can be generalized to the entire population.

By using regression statistics on the fourth and fifth question we demonstrated that a progressive correlation between the number of innovative ideas submitted in the past and the number expected to be submitted in the future exists. 1.58 innovative ideas in three years can be attributed to the natural creativity of the employees. More interesting is the fact that the employees will make 18.2% more innovative ideas in the future than they did in the past – which confirms the first hypothesis (H1). This is an important finding as it proves that higher investments in the innovative ideas system will yield more innovative ideas in the future. However, a matter of concern is the fact that 20% of respondents announced that they will submit less innovative ideas in the future than in the past as a result of dissatisfaction with the current state.

Questions six, seven and eight have an indirect purpose, serving to help us determine how different factors affect innovation and creativity within organizations. By reducing the variables, which is the primary purpose of the factor analysis, we identify three factors – confirmation of the second hypothesis (H2) – affecting the number of innovative ideas submitted and they are:

- (1) Work and education – Creative and dynamic work, work challenges, access to knowledge, tools and technologies, orderly working environment, access to professional and managerial education and in particular the awareness that an employee's work is important in stimulating creativity and innovation.

- (2) Working and living conditions – Minimum time to get to work, flexible working time, the possibility of work from home (if the nature of work allows it), normal psycho-physical work load and in particular the balance between work and family life are factors which employees will increasingly seek for – even at the expense of money and career. Only workers who are comfortable in both their private life and at work will deliver good work results and creative thinking.
- (3) Salaries and rewards – Workers will only work creatively, if they are satisfied with their salary, get financial and other rewards, get recognition and praise from their colleagues and leaders when they perform good work, and have a chance to get promoted if they prove that they are capable.

The answers to the ninth question revealed a large gap between the current and desired situation in work, condition and rewards factors. Mean, median and mode have the lowest values in the current reward, but surprisingly the desired work factor has the highest values. These disparities are most often the cause of employee dissatisfaction.

The tenth question served to determine the life-cycle stage the organizations were in. It is surprising that none of the organizations were in the birth phase, which reflects the low number of start-ups in recent years. By comparing the satisfaction with rewards (salaries, financial and non-financial rewards, recognition and promotion opportunities) and the life-cycle stage of the organizations we can confirm the existence of differences. Employees in organizations in the phase of decline are more dissatisfied with rewards compared to employees working for organizations in growth or maturity phases – confirming the third hypothesis (H3). This makes sense as organizations in the phase of decline are already in the termination phase and there is no real interest for innovations anymore.

### 5.2 Proposals for improvement

We defined the well-being of employees by three factors. It is important that every employee has the feeling that his salary is in accordance with his performance and ability. Furthermore they should be able to express their creativity through work and, finally, they should not have the feeling that they are being exploited at work or in life. The most important task of any leader is to make their employees feel comfortable as this is a pre-condition for achieving good or even excellent results. A well-regulated system of innovative ideas in the organization can be of significant assistance. Below is a summary of findings on how to make the innovative ideas system efficient and effective:

- (1) The entire innovative ideas system should be as simple as possible, all employees have to be familiar with it and believe that it is good and fair.
- (2) The formal description in the form of a policy should be clear and understandable for all.
- (3) With smaller innovative ideas, where savings are not very significant, it is best that the organization awards a symbolic financial or non-financial reward without taking into account whether the innovative idea was an employee's obligation or not.

- (4) For innovative ideas that deliver greater savings – the innovations not being part of employee's obligations – it has to be precisely defined what is an innovation for each individual worker and not for the workplace as this is not precise enough.
- (5) The calculation of savings and the amount of reward have to be as simple as possible and have to stimulate the employees.
- (6) The rewards for small innovative ideas should be defined by the leader, for bigger innovative ideas there should be a professional and independent commission which in addition to technical, technological and economic parameters takes into account also the so called "soft" factors.

## 6 Conclusions

The innovative ideas system is an important part of innovation in the organization. Even small daily improvements which all employees contribute are important. In order for the system to function it must be formalized. However, most important are leaders who are capable of motivating and mobilizing employees.

We established that the number of innovative ideas is progressive, which means that the more innovative ideas the employees submitted in the past, the more innovative ideas they will submit in the future (H1). This is a very important finding as it proves that we will get multiple returns in the future from all the money and effort invested. It confirms the fact that it makes sense to invest in the education and development of employees.

We have also established that only satisfied employees can work creatively and innovatively (H2). And they are satisfied when their expectations are met regarding: (1) work and education opportunities; (2) working and living conditions; and (3) salaries, rewards and promotion chances.

Working conditions in organizations are different and also depend on the life-cycle stage which the organizations are in. In organizations in the birth phase, we can expect many new challenges and initial difficulties. Work in organizations that are in the growth or maturity stage is less stressful and dynamic because most technical and technological problems have been solved, work is more routine, but there are still a lot of promotion and training opportunities as the organizations have to invest heavily in research and development. The situation in organizations which are in the decline stage is completely different. There is no interest for development any more and working conditions are worse. We established that employees in such organizations are extremely dissatisfied with salaries and rewards (H3).

In conclusion, we would like to give three theses as a challenge for further research:

- (1) Innovation is i.e. will become a condition for the survival of organization.
- (2) Salaries must be i.e. will also have to be related to innovation.
- (3) Organizations must i.e. should systematically educate for innovation.

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### **Menedžment inovativnosti in sistem koristnih predlogov**

Menedžment inovativnosti je ena najpomembnejših nalog vodij za zagotavljanje uspešnosti in učinkovitosti organizacij; in pomemben del tega so koristni predlogi vseh zaposlenih – od majhnih vsakodnevnih izboljšav do inovacij z velikimi prihranki. Cilj raziskave je ugotoviti od česa je odvisno predlagano število koristnih predlogov in podati predloge za izboljšanje stanja na tem področju. Osnovna uporabljena raziskovalna metoda je anketa – s katero smo zbrali podatke –, osnovno orodje za obdelavo le-teh pa statistična analiza. Prva ugotovitev je, da obstaja progresivna korelacija med številom predlaganih koristnih predlogov v preteklosti in pričakovanim številom le-teh v prihodnosti. Druga ugotovitev je, da na inovativnost in kreativnost vplivajo trije dejavniki: (1) delo in izobraževanje; (2) pogoji za delo in življenje in (3) nagrade in plače. Zadnja ugotovitev je, da obstaja korelacija med zadovoljstvom z dejavnikom nagrade in plače, in fazo razvoja organizacije. Na koncu lahko zaključimo, da je stopnja inovativnosti in kreativnosti zaposlenih povezana z njihovim splošnim zadovoljstvom v organizaciji.

**Glavne besede:** koristni predlogi, inovativnost, menedžment inovativnosti