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RESEARCH OF KNOWLEDGE AND SKILLS EFFECTS ON ACHIEVEMENT OF EMPLOYEES AIMS

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Abstract

In modern society, duration of knowledge is shorter than ever and it is necessary to continuously adjust educational curricula, as well as to introduce long life learning. The aim of the research presented in this paper is to analyse the problems faced by employees in the workplace, concerning the lack of specific skills and knowledge. The results presented in this paper indicate the need of improving the process of advanced training of employees, which would increase the satisfaction of employees, and thus contribute to stability and growth of an organization.

Keywords:

Knowledge and skills, Long life education, Satisfaction of employees

1. Introduction

Knowledge has a strategic importance in developing unique capacities of organization and in providing them with sustainable competitive advantage is in an interaction with all the activities of business. Job satisfaction is an element of organizational behavior and indicate that the expectations and needs of the workers are well-understood and effectively met. Job satisfaction is described as a function of individual's job-related expectations and the results he obtains when he does the job, [1].

The study of satisfaction with career development and achievement of personal goals of employees should be placed in the time, social and cultural framework. In today's business environment, the organizational culture increasingly interacts with national and international culture.

To achieve personal and career goals, except formally and informally acquired knowledge, another requirements are important nowadays, such as continuous learning through experience, developing of social skills, improving decision-making processes through managing the increasing amount of information. This study aims to investigate the relationship between the knowledge and satisfaction with career development

Hypothesis: There is a relationship between employees perception of their knowledge and their satisfaction with career progression.

2. Place and conditions of research

Economic environment of Serbia in the second decade of the twenty-first century is the period after a long and difficult transition, which included changing the entire economic structure of a country, the reform of political and legal system, opening and liberalization of economy, the privatization of state enterprises, the creation of institutions and mechanisms for investments.

De-industrialization and decline of activities of the Serbian industry and economy is the process that takes nearly a quarter century and is characterized by: narrowing of industrial production; devastation of industrial capacities; reduced productivity in the industrial sector; out-of-date industrial equipment and technologies; decline in the competitiveness of major industries and companies, especially those with export ambitions; decreased the share of industrial sector in GDP of Serbia; decline in export activities; reduction of the number of employees in the industrial sector, etc., [2].

According to the Survey on labor employment in April 2010, using adjusted methodology of International Labor Organization, the unemployment rate was 20.1% and the employment rate is 47.2%, which was unfavorable compared to the EU, [3].

Young people are facing with special employment problems because of the economic situation in the country and there is a big brain drain because young educated people possessing knowledge and technical skills are leaving the country, seeking opportunities abroad that are not open to them at home. There is no comprehensive data on how many people have left Serbia in the last 20 years, but that figure is estimated at around 300,000.

As is the case with well developed countries in Europe, Serbia is facing an increasing problem of pension system sustainability. In addition, after privatisation of state enterprises, large number of middle aged employees (50 years and more) has been left jobless. Although not officially admitted,

besides sex discrimination, also age discrimination is present when looking for a job.

The research programme covered a sample of 35 economic entities both from private and public sector (small and medium enterprises, large economic systems, domestic and foreign companies), with different ownership structures, different number of employees and different economic sectors (health service, agriculture, tourism and catering, public administration, civil engineering, industry and services).

The research was conducted through a survey of employees, based on a sample of a total **138 respondents**, during the period from March to July 2013. on the territory of the Republic of Serbia. The results of examining the entire sample are enclosed, and they are classified according to the organization, gender, educational structure, length of service, age, position in the organization.

3. Independent variables

There were five differentiated **age categories**: up to 25; 25-34; 35-44; 44-55 and over 55 years.

Five categories of educational level were observed:

primary school; secondary school; bachelor degree; master degree and PhD (Doctor of Science).

The position in the organization was observed through five categories: worker; expert; lower-level managers (first-line managers); middle-level managers and top-level managers.

The length of service was observed through five categories: up to 5 years; from 5-10; 10-20; 20-30 and over 30 years.

4. Dependent variables

The research has included following dependent variables:

- satisfaction with knowledge
- satisfaction with communication,
- satisfaction with initiative,
- satisfaction with applying knowledge,
- satisfaction with position,
- satisfaction with advancing based on the knowledge

There was a questionnaire made up for the research needs, with dependent variables observed in two states, the current one and the desired one. For each question there were five offered answers which represent attitudes categorized according to **Likert scale**³:

³ A type of attitude scaling that consists of a series of claims devoted to different aspects of a certain attitude. It is given to a respondent with the task of expressing the level of their agreement or disagreement for each and every claim, in a five-level scale, as a rule, in a following way: „ I strongly disagree “, „ I do not agree “, „ I do not have an opinion (undecided) “, „ I agree “, „ I strongly agree “.

1. I strongly disagree,
2. I do not agree,
3. I do not have an opinion (undecided),
4. I agree,
5. I strongly agree.

The degree of satisfaction we have observed through categorical scale:1- very dissatisfied; 2- dissatisfied; 3- neutral; 4- satisfied; 5- very satisfied.

5. Sample description

Sample comprises 138 respondents with the education, age, professional and sex structure, as follows.

Educational structure - 2% of the respondents have primary school, 41% have high-school education, 43% have higher education and 14% have master degree.

Age - The highest percentage of the respondents (38%) is between the age of 35 and 44, 33% are between the age of 25 and 34, whereas only 4% of the respondents are up to 25 years of age, 17% are between 44 and 55 years old, and 8% of them are over 55 years old.

Length of service - 19% of the respondents have less than 5 years of service, 27% have 5-10 years of service, 30% have 10-20 years of service, 16% have 20-30 years of service and 8% have more than 30 years of service. It may be noted that 75% of the respondents are under the age 45 years.

Position in the organization - 50% of the respondents are in the position of a top-level manager, 20% are middle-level managers, 13% are lower-level managers, 12% are experts, whereas only 5% are workers. As much as 83% of the sample are managers.

Professions - Economists are present with 46% of all the respondents, philologists with 1%, legal branch with 12%, technical with 14%, medical with 1%, organizational (administrative) with 5%, and other with 20%.

Ownership structure- According to the sample data, the highest incidence of respondents is that of LLC - 30%, 27% of them are from public utility companies (public agencies and organizations), 21% are from joint-stock companies, and 22% of the respondents are from private enterprises.

Gender- The incidence of female respondents in the sample is significantly higher than that of the male respondents: 67% versus 33%.

6. Results: comparison of the current and desired situation

Figure 1 presents levels of current and desired satisfaction with communication, initiative, application of knowledge, progression, position based on knowledge. There is a noticeable difference between them.

In interpreting the results it should be in mind that the sample consists mainly of managers. Since they are generally hierarchically highly ranked in

companies, degree of their satisfaction with the present state is mainly positive, ie with no discontent.

The result of the research indicates that the smallest difference is between the current and desired state in communication and a somewhat

bigger difference is in the opportunities of the initiative, and even higher in applicability of what has been learnt, career advancement and perceptions that the more knowledge they have is related to higher progressions in their careers.

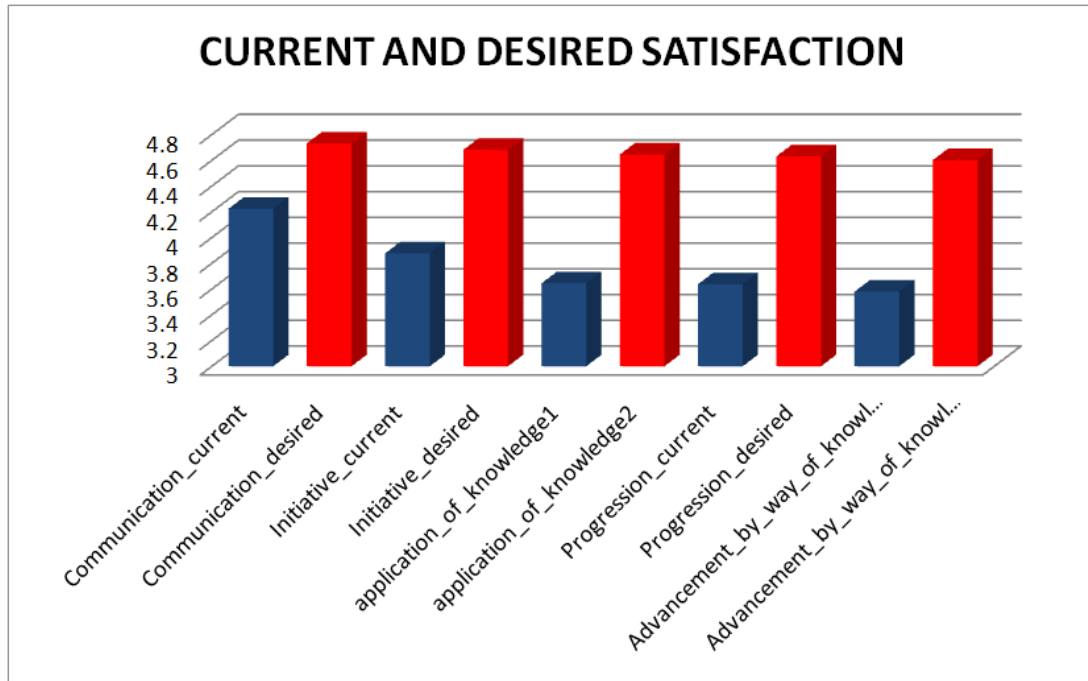


Figure 1. Current and desired satisfaction

To answer to the question whether it is significantly different satisfaction with communication, initiative, applying knowledge, position, advancing based on the knowledge in the current state and the desired state, we applied a paired sample t-test (which is used to determine whether there is a significant difference between the average values of the

same measurement made under two different conditions). Table 1 shows descriptive data of paired samples, the mean values and standard deviation of examined variables in present and desired state.

Results of T test application are given in table 2.

Table 1. Paired samples statistics

		Mean	Std. Deviation	Std. Error Mean
Pair 1	Communication - current	4.2246	.83725	.07127
	Communication - desired	4.7319	.54759	.04661
Pair 2	Initiative - current state	3.8768	.96246	.08193
	Initiative - desired state	4.6812	.54015	.04598
Pair 3	Application of knowledge - current state	3.6449	1.12568	.09582
	Application of knowledge - desired state	4.6449	.62550	.05325
Pair 4	Progression – current	3.6377	1.24362	.10586
	Progression - desired	4.6304	.79300	.06750
Pair 5	Progression by way of knowledge - current state	3.5797	1.13222	.09638
	Progression by way of knowledge - desired state	4.6014	.82427	.07017

Table 2. Paired sample test

		Paired Differences				t	df	Sig. (2-tailed)	Eta squared	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
					Lower	Upper				
1	Communication current – Communication desired	-.507	.906	.077	-.660	-.355	-6.576	137	.000	0.239
2	Initiative-current Initiative-desired	-.804	.934	.0796	-.962	-.647	-10.108	137	.000	0.427
3	Application of knowledge – current Application of knowledge - desired	1.00	1.189	.1013	-1.200	-.780	-9.872	137	.000	0.415
4	Progression-current Progression-desired	-.993	1.193	.1016	-1.194	-.792	-9.775	137	.000	0.410
5	Advancement by way of knowledge-current Advancement by way of knowledge- desired	-1.02	1.193	.1015	-1.222	-.821	-10.062	137	.000	0.424

Since the value of Sigm (2-tailed) is less than 0.05 for all paired variables, one can conclude that there is the significant difference between present and desired satisfaction with communication, initiative, knowledge application, advancement in general and advancement related to knowledge. In all cases desired values of satisfaction are higher than present ones, producing the negative difference of mean values, as given in the first column of table.

The effect size has been calculated by using eta square, as given in the last column. Interpretation of this quantity has been given by Cohen (1988, str 284-287): 0.01 - small difference, 0.06 - intermediate difference, 0.14 and more - large difference.

Since all obtained values are greater than 0.14, the difference between present and desired state is large, especially when analyzed satisfaction with personal initiative, knowledge application, progres-

sion in career and progression related to knowledge.

This result is of special interest because 83% of the respondents are managers, indicating significant space for improvement of knowledge and skills of employed managers toward fulfilling their ambitions.

7. Correlation of independent and dependent variables

In order to establish relationship between independent variables: education levels, age structure, job position and longevity and dependent variables: satisfaction with knowledge, satisfaction with knowledge of foreign languages, satisfaction with computer skills, communication skills, initiative, application of knowledge and advancement, we calculated the Pearson's coefficients of correlation, table 3.

Table 3. Pearson correlation

	Education	Age	Position	Length of service
Knowledge	.182(**)	0.029	0.095	0.055
Foreign language	.305(**)	-.229(**)	0.063	-.149(**)
Computer	.233(**)	-.141(**)	.128(*)	-0.043
Communication	0.009	0.093	0.06	.147(**)
Initiative	0.078	.132(*)	.193(**)	.164(**)
Application of knowledge	-.119(*)	0.072	0.066	0.096
Knowledge-position	-.124(*)	0.026	-0.023	-0.053
Higher education a better position	-.206(**)	0.03	-0.071	0.008
Advancement by knowledge	0.091	-0.005	.254(**)	-0.035

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

According to Cohen (1988), if r is between 0.1 and 0.29 it is about weak correlation; if r is between 0.3 and 0.49 it is about medium correlation and if r is between 0,5 and 1,0 it is about strong correlation, results of correlation indicate:

- Weak positive correlation between satisfaction with knowledge and education level ($r = 0.182$).
- Medium strong positive correlation between education level and satisfaction with knowledge of foreign languages, ($r = 0.305$) and weak positive correlation between education level and computer skills, ($r = 0.233$).
- Weak negative correlation between the satisfaction of computer skills ($r = -0.141$) and knowledge of foreign languages, ($r = -0.229$) and the age structure, which means that older employees are less satisfied with the knowledge of foreign languages.
- Weak positive correlation between satisfaction with communication and job longivity($r = 0.147$), indicating possibility of communication skills development.
- Weak positive correlation between age and the length of service and satisfaction with initiative ($r = 0.164$).
- Weak negative correlation between formal education and practical application of knowledge ($r = -0.119$) indicating low applicability of what has been learnt.
- Weak negative correlation between formal education and attitude that it enables better job position at work ($r = -0.206$). This indicates the need for development of other, informal skills and knowledge.
- Weak correlation of work position and advancement related with knowledge ($r = 0.254$).

In order to analyze the relationships between satisfaction with position, promotion, participation in decision-making and perception of the progress we have observed a correlation between the dependent variables, table 4.

Table 4. Pearson Correlation between dependent Variables

Pearson Correlations			
	Decision making	More knowledge a better position	Progression by knowledge
Higher education a better position	0.1	.590(**)	.442(**)
Progression	.196(*)	.435(**)	.617(**)
N	138	138	138

We have got a strong positive correlation

- between the attitude in which the higher formal education provides a better position and the attitude that more knowledge provide a better position, ($r = 0.590$),
- between the satisfaction with progression and the attitude that progression is rising by improving knowledge, ($r = 0.617$)

We have got the medium positive correlation

- between the satisfaction with progression and the attitude in which more formal knowledge provide a better position, ($r = 0.435$)

We have got the weak positive correlation between the satisfaction with participation in decision-making and satisfaction with progression in work.

8. Conclusions

Results of investigation performed on a sample dominantly comprising of managers in after transition period in Serbia indicate the need for a long life education concept to be implemented in career development.

Result has shown a negative correlation between age structure and knowledge of computer technology and foreign language skills. The authors of this study believe that the result of the survey on a sample of lower-ranking workers would be much worse and that the lack of necessary knowledge is one of the reasons for high unemployment, especially in middle age workers.

The results showed that there is a weak negative correlation between satisfaction with knowledge based position, knowledge and education level and weak negative correlation between formal education and practical application of knowledge. It indicating low applicability of what has been learnt and weak negative correlation between formal education and attitude that that formal education enables better job position at work is connected with economic and social situation in the country.

Obtained results have shown big difference between current and desired satisfaction with skills important in business, indicating the need for continuous managers development.

As life expectancy increases and companies do not promise lifelong security and many workers will need to make major changes during middle age.

This shows that the relationship between knowledge and career development exist, but that it is not only connected to a formal knowledge. It means that satisfaction in career development requires the acquisition of new knowledge that is not taught only through formal education.

To make successful transitions, business people must stay open for the possibilities their experience qualifies them. In that proces they have to remain realistic about what they can achieve. Thereby, it is necessary to apply concept of „self-enhancement“ (Fiske's 2004). The tendency for

individuals to self-enhance results in attribution about life outcomes (e.g. Hastorf et al.1970), differences in intergroup behavior (e.g.Polzer et al. 1977), sources of identity investment (e.g. Eccles and Wigfield 1995), and behavior in interpersonal relationships (e.g., Tesser 1998), [4].

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