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# Problem Solving In Enterprises, the Importance of Emotional Intelligence and Application Process

## ABSTRACT

Gender has no significance in terms of personality of the personnel, and also combative personality traits of the personnel in terms of working duration variant within enterprise, social personality traits of the personnel in terms of the department variant within the personnel work, dreamy personality traits of the personnel in terms of the position variant within the enterprise, combative social, dreamy and enterprising personality traits of the personnel in terms of the position variant within the enterprise, social personality, dreamy enterprising features of the personnel in terms of the personality trait variant have no significant difference. It was determined that dreamy, rationalistic, combative and enterprising personality traits of the personnel have no significant difference in terms of hobbies of the personnel.

A significant difference has not been found in terms of problem solving attitudes and emotional intelligence properties of the personnel and their position within the department. It may be said that there is no significant difference in their emotional intelligence levels regarding personality variant considering position of these personnel as administrator, technical staff, expert and usual worker and their personality traits as attentive, venturous and authoritative. Learning properties of the enterprise's personnel who participated in the study do not exhibit a significant difference according to position, task and responsibilities of the personnel in terms of position variable within the enterprise and their personal hobbies.

Venturous score of the personnel working in Marketing Department within the enterprise compared to the personnel working in Production Department of the enterprise; and venturous score of the personnel working in Accounting and Finance Department within the enterprise compared to the personnel working in Production Department of the enterprise have been found higher. According to the average rationalistic score of the personnel participated in the study as Human Relations Department within the enterprise, rationalistic score of the personnel working in position of administrator in the enterprise has been found higher compared to the rationalistic score of the personnel working in position of worker. We can comment that administrators in the enterprise behave more reasonably compared to workers.

According to the gender variant of the problem solving skill levels of the personnel, problem solving level of the female workers has been found higher compared to the problem solving level of the male workers. The problem solving score of the enterprise's workers whose personality trait is attentive has been found higher compared to the enterprise's workers whose personality trait is combative regarding personality trait variant in the problem solving skills of the personnel. On the other hand, emotional intelligence level of the enterprise's female workers has been found higher compared to the enterprise's male workers according to the gender variant in the emotional intelligence levels of the personnel.

A positive correlation has been determined between the problem solving and the combative rationalistic enterprising personality; the emotional intelligence factor and the combative personality; the learning and the combative personality; the problem solving and the enterprising personality; the emotional intelligence factor and the enterprising personality; the learning and the enterprising personality; the emotional intelligence factor and the problem solving; the learning and the problem solving; the learning and the emotional intelligence factor. A significant correlation has not been found between the combative, enterprising personality and the dreamy personality.

**Key words:** *Emotional Intelligence, problem solving, learning, Personality.*

## Introduction

The purpose of the research: emotional intelligence and problem-solving skills are to be examined according to the specified variable. People perceive perception of emotional intelligence in the process of problem solving and learning perceptions were measured. Emotional intelligence has been designed in a different way about importance of factors, testing the different levels of perception of the problem solving process is provided.

The purpose of this study is to investigate employees' emotional intelligence and problem-solving skills and their impact on learning, according to some variables. The importance of emotional intelligence of employees in enterprises, zones they are working, many variables such as working hours, effects on learning and problem solving were investigated in this study. This research, business people working in various departments, which is owned by the personal characteristics of the individual characteristics of the character traits that emergence of the effect on their relations with each other were also examined.

Relevant literature research examining the survey was conducted. The survey with Data Collection Form, Bar-on Emotional Intelligence Scale and the Problem Solving Inventory, Learning Inventory was used. For data analysis SPSS / Windows 14.0 software was used. 'Correlation' was used to determine the difference between the groups 't-test' and 'variance analysis', to determine the relationship between emotional intelligence and problem solving skills.

### 1. The Problem Concept

The problem is referred to the existing power gained against all obstacles towards any individual to reach their intended targets in the subject. To identify the different problems is a conflict where people are faced mainly on the basis of a target block in order to access process (Dinçer, 1995).

A “problem” is the problem word of Greek origin here. This word “proballo” is derived from the word meaning “prominent obstacles”. According to Evans, problem solving, is to choose appropriate course of action and to be able to perform work on behalf of the intended conditions of access to the baseline condition. Problem with many definitions, as difficulty status, disability, including when to be satisfied with the situation and have created even though the solution may have unintended consequences are many definitions. An important dimension of the problem is that how the problem is perceived. In such cases, a situation that any person can describe in terms of the problem, the problem itself may not be of the same quality to another person. Adaptation to the personal and social lives of the individuals involved can be considered as a problem solving process. In this respect, some researchers difficulty of the problems and difficulties they contain state of the opportunity through reviews of people argue they can bring about positive ways. (Keleş, 2000).

Perception of problem situations by the people already experienced such situation or thought that he/she lived until obtaining a solution to the situation is considered as the problem solving. For the first, people are learning to recognize the problem after that a problem solving process takes place. In this regard, Kattering stated that a well-defined problem is a part of problem solved (Dinçer, 1995).

Elements within the scope of the problem solving aspects are intelligence, motivation, cultural items, organizational expectations, people’s self-esteem and anxiety rates, people’s perception levels, thinking and creativity rates, being considered as subsequently provided habits (Terzi, 2000).

## 2. Analysis

In the project titled “Emotional Intelligence Importance of Problem Solving Process in Business & Application”, developed by HG Clearance Inc., the Barsan Global Logistics, Inc. and Rastplast Inc. for the Manisa province, a descriptive study was used for the problem-solving process to measure the effects of emotional intelligence model. In this study, the scale used in the literature was used in the revised scale selection.

### 2.1. Methods and Methodology of the Study

In the study, data collection form, Bar-on Emotional Intelligence Scale and the Problem Solving Inventory were used as Learning Inventory. For data analysis the SPSS / Windows 14.0 software has been used. To determine the difference between the groups ‘t-test’ and ‘variance analysis’ have been used for to determine relationship between emotional intelligence and problem solving skills ‘correlation’.

In this study, five-point Likert scale according to four main factors (eight sub-factors) has been used, the importance of the learning process of problem solving and emotional intelligence and its effects are included in the measurement the participants should use the the value between 1 and 5 while giving answers, from 5 – “definitely yes” at one end to 1 – “absolutely no” at the other end in the options field. Question located in the scale “Personality traits factors located within dreamy, rational, social, combative and aggressive, features” “Emotional intelligence capabilities”, learning abilities “and the problem-solving process are being made for to measure how to detect what and how they are cared for these factors. Six of the demographic survey, 50 of the quintet consisting of 56 questions were organized according to the Likert scale.

### 2.2. Purpose and Rationale and Contribution of Working

In this study the companies, engaged in the electronics industry, storage, customs clearance HG Clearance Inc., Barsan Global Logistics, Inc. and Rastplast Inc. located in Manisa province were surveyed, employee problem-solving processes in emotional intelligence factors of personality (with five subfactors) were discussed in order to measure how the people perceive the learning factor. Set of problem-solving skills with another emotional intelligence levels were compared to examine variables. People perceive the problem solving process will be measured, perceptions of emotional intelligence and learning perceptions will be studied. Contribution of the study factors related to the problem solving process regarding the importance of emotional intelligence should be studied, although quite a few studies in this field were provided for testing on different levels.

### 2.3. Environment and Constraints Of The Study

HG Clearance Co., Barsan Global Logistics, Inc. and Rastplast Inc., also companies located in the City of Manisa in the Manisa Organized Industrial Zone, have been surveyed on the problem solving processes related to business, characteristics of emotional intelligence and learning levels were studied, the aim was to learn how they perceive (how they feel the impact of) and by means of questionnaire to measure their perceptions; the correct response was obtained from only a hundred people belonging to the staff of Manisa branch of the HG Clearance Co., Barsan Global Logistics, Inc. and Rastplast Inc. Some employees were asked to answer a questionnaire. On the other hand, limitation of working hours constitutes one of the most important limitations of this study. On the other hand, nearly half of the population reached has responded to the survey.

### 2.4 Results

Before applying to the mass, a survey sample was created and a pre-test was passed; this test resulted in the increased number of questions included in the questionnaire, it was modified in some explanatory direction. Survey questions analysis was used and the findings were analyzed with the SPSS 17 software package and then the results were evaluated. Cronbach’s alpha coefficient used to determine the reliability of the questionnaire was found to be approximately 70% in this study. This ratio shows that poll’ results were “sufficiently reliable” (Kalaycı, 2008: 405).

**Table 1.**  
**Distribution of the Sample by Gender Group**

	Frequency	Percent (%)
Woman	40	40,0
Male	60	60,0

40.0% of the people participating in the study were female, 60 (60.0%) were male. Because of the majority of men, the research will reflect the perceptions of mostly male workers.

**Table 2.**  
**Distribution of the Sample Group by the Length of Employment**

	Frequency	Percent (%)
0-5 years	10	10,0
6-10 years	70	70,0
11-15 years	20	20,0

From all employees participated in the study, 10 (10.0%) have 0-5 years of length of employment in the company, 70 (70.0%) – 6-10 years, and 20 (20.0%) 11-15 years. Working experience of more than 80% of employees was under ten years, so the perception of this research will be reflected by young people.

**Table 3.  
Breakdown of the Work in the Business Section of the Sample Group**

	Frequency	Percent (%)
Production	10	10,0
Marketing	68	68,0
Accounting Finance	10	10,0
Human resources	12	12,0

From all employees participated in the study, 10 (10.0%) employees were from the business area Production, 68 (68.0%) – from Marketing, 10 (10.0%) – from Accounting and Finance and 12 (12.0%) from the Human Resources Department. Marketing function was a reflection of fundamental activity of the companies. Therefore, the results will mainly reflect the perception of marketing area employees in problem solving processes.

**Table 4.  
The Average Problem Solving Levels of Employees Participating in Operation Research**

	N	Avg.	S.s	Min.	Max.
Problem solving	100	3,890	0,733	1,625	5,000

The average level of problem-solving of employees of the company participated in the study was found to be  $3.890 \pm 0.733$ .

**Table 5.  
The Average Levels of Emotional Intelligence of Employees Taking Part in the Research**

	N	Avg.	S.s	Min.	Max.
Emotional intelligence	100	4,063	0,784	1,750	5,000

The average level of emotional intelligence of employees of the company participated in the study was found to be  $4.063 \pm 0.784$ . A feature of emotional intelligence is to design the future in mind. Here, this property is considerably increased. On the other hand, dream took place at the end of the visionary personality traits of employees, at this stage they perceive missing.

**Table 6.  
Levels of Emotional Intelligence of the Employees in the Research by Gender Differentiation Variable**

	Group	N	Avg.	Ss	MW	p
Emotional intelligence	Female	40	4,275	0,635	920,000	<b>0,048</b>
	Male	60	3,921	0,845		

The research work of emotional intelligence level of the average, the difference between the average of the group as a result of Mann-Whitney U-test for to determine whether to show a significant difference according to gender was found to be statistically significant. (Mann-Whitney U = 920.00, p = 0.048 < 0.05). Emotional intelligence level of female employees (x = 4.275) compared with the level of emotional intelligence of male employees (x = 3.921) was higher.

**Table 7.  
Research of Emotional Intelligence in Administration Level,  
Differentiation by Variable Length of Employment**

	Group	N	Ort	Ss	KW	p
Emotional intelligence	0-5 year	10	4,050	0,587	0,101	0,951
	6-10 year	70	4,046	0,837		
	11-15 year	20	4,125	0,700		

Kruskal made to determine whether the employees of enterprises involved in research on emotional intelligence score average for the runtime variable to show a significant difference according to Wallis H-test results. The mean difference between the groups was not significant. (KW = 0.101; p = 0.951 > 0.05). The emotional intelligence factors related to work time or work experience may be expressed as having little differences.

**Table 8.  
Employees Participating in the Study Worked in the Department of Business Administration, Emotional Intelligence Level Differentiation by Variable**

	Group	N	Avg.	Ss	KW	p
Emotional intelligence	Production	10	3,650	0,679	4,080	0,253
	Marketing	68	4,121	0,730		
	Accounting Finance	10	3,975	1,229		
	Human resources	12	4,146	0,693		

Employees of the company participated in the study scored mean of emotional intelligence in terms of the variable part of the work being done to determine whether to show a significant difference according to the Kruskal-Wallis H-test results. The mean difference between the groups was not significant. (KW = 4.080;  $p = 0.253 > 0.05$ ). Emotional intelligence of employees participating in the study is considered to differ according to the department they work in.

**Table 9.**  
**Employees Participating in the Research, Differentiation of Emotional Intelligence according to Position Level by Variable**

	Group	N	Avg.	Ss	KW	p
Emotional intelligence	Manager	10	4,475	0,474	6,854	0,077
	Technical Staff	14	4,375	0,555		
	Expert	10	3,788	0,975		
	Working	66	3,975	0,803		

Company employees participating in the study scored mean of emotional intelligence in terms of the position variable in the business conducted in order to determine whether to show a significant difference according to the Kruskal-Wallis H-test results. The mean difference between the groups was not significant. (KW = 6.854;  $p = 0.077 > 0.05$ ). For managers, technical staff, experts and even employees it can be said that there was no significant difference in emotional intelligence depending on the position levels.

**Table 10.**  
**Levels of Emotional Intelligence of Employees Participating in the Research, Feature Differentiation by Variable**

	Group	N	Avg.	Ss	KW	p
Emotional intelligence	Careful	34	4,140	0,894	3,500	0,174
	Struggling	38	3,882	0,800		
	Authoritarian	28	4,214	0,568		

Company employees participating in the study scored mean of emotional intelligence, a personal property, made in order to determine whether to show a significant difference in terms of the variables according to the Kruskal-Wallis H-test results. The mean difference between the groups was not significant. (KW = 3.500;  $p = 0.174 > 0.05$ ). For such characteristics of the employees as attentive, adventurous and authoritarian personality variables it can be said that there were no significant differences in the level of emotional intelligence.

**Table 11.**  
**Levels of Emotional Intelligence of Employees Participating in the Research, Hobbies as Differentiated by Variable**

	Group	N	Avg.	Ss	KW	p
Emotional intelligence	Searching	16	4,281	1,040	6,508	0,164
	Interesting things lovers	28	4,027	0,689		
	Roaming the world	10	4,163	0,517		
	Adventurous	14	3,857	0,401		
	Taking risks	32	4,043	0,912		

Company employees participating in the study scored mean of emotional intelligence, a personal property, made in order to determine whether to show a significant difference in terms of the variables according to the Kruskal-Wallis H-test results. The mean difference between the groups was not significant. (KW=6,508;  $p=0,164 > 0,05$ ). For such characteristics of the employees as hobby variables, it can be said that there were no significant differences in the level of emotional intelligence.

**Table 12.**  
**Levels of Emotional Intelligence of Employees Participating in the Research, Gender Differentiation by Variable**

	Group	N	Avg.	Ss	MW	p
Learning	Female	40	3,733	0,343	582,000	0,000
	Male	60	3,261	0,577		

Company employees participating in the study scored mean of learning, the difference between the average for the group as a result of the Mann-Whitney U-test has to be found, a significant difference according to gender was found as being statistically significant. (Mann-Whitney U = 582.00;  $p = 0.000 < 0.05$ ). Learning scores of female employees ( $x = 3.733$ ), learning scores of male employees ( $x = 3.261$ ) were found. Job learning levels of female workers may be considered as being higher than those of male workers in this study.

**Table 13.**  
**Learning Levels of Employees Participating in the Research,  
Length of Employment/Working Time Differentiation by Variable**

	Group	N	Avg.	Ss	KW	p
Learning	0-5 years	10	3,867	0,281	12,855	<b>0,002</b>
	6-10 years	70	3,329	0,547		
	11-15 years	20	3,667	0,490		

Company employees participating in the study scored mean of learning, the aim was to determine whether the length of employment would reveal a significant difference in terms of the variables according to the Kruskal-Wallis H-test results. The mean difference between the groups was statistically significant. (KW = 12.855, p = 0.002 <0.05). The Mann-Whitney U test was used to determine what caused the group differences. According to this, employees in the enterprises with the length of employment of 0-5 years have scored higher learning points compared with those who had been in the company with the length of employment of 6-10 years. (Mann-Whitney U = 134.000; p = 0.002 <0.05). Employees in the enterprises with the length of employment of 11-15 years, were higher in learning score during study period than those with the length of employment of 6-10 years. (Mann-Whitney U = 464.000; p = 0.021 <0.05). At certain times learning at different levels of experience is said to affect learning in different ways.

**Table 14.**  
**Learning Levels of Employees Participating in the Research, Work Department Differentiation by Variable**

	Group	N	Avg.	Ss	KW	p
Learning	Production	10	3,300	0,592	8,706	<b>0,033</b>
	Marketing	68	3,549	0,546		
	Accounting Finance	10	3,033	0,477		
	Human resources	12	3,361	0,395		

Company employees participating in the study scored mean of learning, the aim was to determine whether the Work Department/the work being done would reveal a significant difference in terms of the variables according to the Kruskal-Wallis H-test results. The mean difference between the groups was statistically significant. (KW = 8.706; p = 0.033 <0.05). The Mann-Whitney U test was used to determine what caused the group differences. According to this, the employees working in the business area Marketing in the enterprises have scored higher points in learning during study period than those working in the business area Accounting & Finance. (Mann-Whitney U = 164.000, p = 0.008 <0.05).

**Table 15.**  
**Learning Levels of Employees Participating in the Research, Job Differentiation by Variable**

	Group	N	Avg.	Ss	KW	p
Learning	Manager	10	3,300	0,322	2,732	0,435
	Technical Staff	14	3,619	0,421		
	Expert	10	3,450	0,599		
	Workers	66	3,437	0,588		

Company employees participating in the study scored mean of learning, the aim was to determine whether the position held in the company would reveal a significant difference in terms of the variables according to the Kruskal-Wallis H-test results. The mean difference between the groups was not significant. (KW = 2.732; p = 0.435 > 0.05) does not show a significant difference according to the position, duties and responsibilities of employees.

**Table 16.**  
**Learning Levels of Employees Participating in the Research, Operation Feature Differentiation by Variable**

	Group	N	Avg.	Ss	KW	p
Learning	Careful	34	3,657	0,546	8,051	<b>0,018</b>
	Struggling	38	3,298	0,504		
	Authoritarian	28	3,405	0,543		

Company employees participating in the study scored mean of learning, the aim was to determine whether the personal properties would reveal a significant difference in terms of the variables according to the Kruskal-Wallis H-test results. The mean difference between the groups was statistically significant. (KW = 8.051; p = 0.018 <0.05). The Mann-Whitney U test was used to determine what caused the group differences. According to this, as part of the learning, the employees with personal properties of careful work were higher in learning score during study period than those with struggling personal properties. (Mann-Whitney U = 406.000, p = 0.006 <0.05). The attention factor was more important in the learning process in this study than a struggle feature.

**Table 17.**  
**Learning Levels of Employees Participating in the Research, Hobbies to be Differentiated by Variable**

	Group	N	Avg.	Ss	KW	p
Learning	Searching	16	3,583	0,655	4,658	0,324
	Interesting things lovers	28	3,310	0,591		
	Roaming the world	10	3,533	0,367		
	Adventurous	14	3,595	0,204		
	Taking risks	32	3,417	0,588		

Company employees participating in the study scored mean of learning, the aim was to determine whether the hobbies of the employees would reveal a significant difference in terms of the variables according to the Kruskal-Wallis H-test results. The mean difference between the groups was not significant. (KW = 4.658; p = 0.324 > 0.05). It was expressed in this study, that the employees' personal hobbies did not make a significant difference on learning.

### Results

In this article, the problem-solving skills and emotional intelligence of employees, their impact on learning have been examined. The gender of personnel involved in the study did not matter in terms of personality. In other words, there were no personality differences in terms of both female and male participants; combative personality traits variables, social personality characteristics of employees in terms of their position, visionary personality trait variable, challenging social, visionary, and aggressive personality traits in terms of the position variable, employees social personality, visionary, aggressive features – personal property variables did not show a significant difference that can be expressed. Rational visionary, combative and aggressive personality traits of employees, hobby of employees is determined to show a significant difference in the variable.

Problem-solving abilities depending on the length of employment of employees in the company, the department they are working in, position and hobbies – there were no significant differences in terms of task variables. Emotional intelligence abilities of the employees participating in the research, length of employment, hobbies, work positions experience variables show a significant difference in the variable. As to employees as managers, technical staff, experts and even workers it can be said that there were no significant differences in the position variable in emotional intelligence. As to characteristics of the employees: attentive, adventurous and authoritarian – on the personality variables it can be said that there were no significant differences in the level of emotional intelligence. As to position: learning characteristics of the employees who participated in the research in terms of position and personal hobby variables does not show a significant difference according to the duties and responsibilities.

As to the gender: the problem-solving skills of the staff participating in the study were higher than the problem solving skills of female and male working employees. Female employees have shown more working solutions in the problem-solving process than male employees. As to the personal characteristic variables: the employees participated in the survey and having careful work skills as personal property, scored higher at the average problem solving than the employees with the struggling personal properties.

Company's employees participating in the study to the gender of the average levels of emotional intelligence, have shown higher levels of emotional intelligence among female employees than among male ones. Emotional intelligence of employees working in the company differs according to the department they are working in.

The average scores on learning for the company's employees participated in the survey revealed that the learning levels of female company's employees were higher than the learning levels of the male employees. According to this study it can be stated, that the job learning levels of female workers is higher than the job learning levels of male workers. Length of employment in the company is also affecting the learning: the employees of enterprises involved in the research with 0-5 years length of employment in the company scored more learning points during the study period than the employees with 6-10 years length of employment in the company. The employees in the enterprise with the length of employment of 11-15 years in the enterprises have scored higher learning points during study period, than the employees with the length of employment of 6-10 years. At certain times learning at different levels of experience is said to affect learning in different ways.

The employees of enterprises involved in the research and working in the business area Marketing in the enterprises have scored higher points in learning during the study period than those working in the business area Accounting & Finance. The Company's employees participating in the study and operating with caution have scored higher points on learning in terms of personal property variable than those operating contentiously. According to this study, the attention factor was more important in the learning process than the struggling feature.

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