A Field Research on the Measurement of Psychological Capital in Organizations: Mersin Metropolitan Municipality Sample

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This study aimed to determine whether there were significant differences in terms of the variables, such as the gender, age, marital status, working time, education level, household income, and service period of 421 people working as civil servants and workers in Mersin Metropolitan Municipality for the sub-dimensions of psychological capital, which are hope, resilience, optimism, and self-efficacy, and significant correlations were also identified between the dimensions of psychological capital. The majority of municipal employees (65.9%) had a high level of psychological capital perception while 34.1% had a low level of psychological capital perception.

Keywords: psychological capital, organizational behavior, statistical analysis

Introduction

In today’s rapidly increasing competitive conditions, organizations need resources that will differentiate themselves from other organizations and provide sustainable competitive advantage. The most important and valuable resource of an organization is human capital, and the human resources can change the strategic perspective of the organization.

The concept of psychological capital refers to the positive psychological situation in which individuals have positive expectations that they will be successful today or in the future, have faith to overcome difficult tasks, and overcome problems to sustain success (Avey, Patera, & West, 2006, p. 54). This definition distinguishes psychological capital from human capital (accumulation of knowledge, talent, and experience) and social capital (social relations and communication). Psychological capital, unlike traditional capital types, is expressed as the ability to successfully transfer human, social and economic capitals to the organization with the goal of employee productivity. Efforts to increase the levels of hope, resilience, self-efficacy, and optimism that make up the elements of psychological capital of the employees lead to creating a value and enhance their loyalty by developing trust in their organizations.

The primary purpose of the study was to determine whether there are significant differences in their psychological capitals in terms of demographic variables, such as gender, age, marital status, working time, educational status, household income and service period of civil servants and workers in Mersin Municipality.
for hope, resilience, optimism, and self-efficacy, which are the sub-dimensions of psychological capital. In addition, the relationship between the dimensions of psychological capital and its effects constituted another sub-objective. The psychological capital perception of the employees was evaluated and the corporate profile was interpreted.

In the first part of the study, firstly the concept of organizational culture was explained and organizational behavior is discussed. Then, economic, human, social, and psychological types of capital were discussed.

In the second part of the study, the concept of psychological capital was explained in detail with reference to the other related concepts, its importance, and benefits. In addition, general information about psychology and positive psychology was given in this section.

In the third part, which is the application part of the study, the findings were evaluated by analyzing the survey conducted with the participation of civil servants and workers working in Mersin Municipality in order to measure psychological capital in organizations.

**Theoretical Framework**

**Capital and Types of Capital**

The concept of capital, in its most known meaning, is used as the tangible assets and money owned by an individual or organization. However, when this concept is discussed in depth, it can be determined that it is not only composed of material inputs. In this context, modern approaches examining capital only in terms of economic criteria led them to be criticized by new post-modern approaches. In this way, in general terms, capital has lost its aspect of being just an economic term, and other riches owned, such as being intellectual, knowledge, skills, social life, culture, and psychology have come to be considered as capital. In the following sections, apart from economic capital, some of the other types of capital brought by postmodern approaches are briefly mentioned (Hodgson, 2014, p. 1068).

**Economic Capital**

Economically, capital is considered equivalent to money. In this context, capital is seen as the investment of the institution in human resources, a company, or an enterprise. At the same time, all the assets of the institution with monetary value which they need in order to offer their products and services to the market are included in the capital (Hodgson, 2014, p. 1069).

**Human Capital**

The concept of human capital, which can be defined as labor quality, emerged with the beginning of 1960s as an important component of the economy. Theodore W. Schultz’s argument that the main source of economic growth is human and therefore cannot be ignored was effective in the recognition of the concept in history (as cited in Koç, 2013, p. 248).

Human capital can be described as the knowledge, skills, abilities, and competencies that an individual has as a result of the education and experience gained. Becker (1964), on the other hand, defined human capital as a high level of personal structure that includes knowledge, skills, and other characteristic features that one uses to create added value (as cited in Banerjee, 2013, p. 223).

**Social Capital**

Pierre Bourdieu (1985), who made a great contribution to the formation of the concept of social capital, defined it as “the sum of the existing or potential resources that develop on the basis of mutual relations and the
networks they form” (p. 248). In other words, social capital is a whole which is formed by structures, such as norms, interpersonal connections, trust, etc. that strengthen cooperation and coordination for mutual benefits.

**Psychological Capital**

It was stated that psychological capital, which was put forward by being influenced by the positive trends in the wake of World War II, was a wealth beyond economic, human, and social capital. In this context, the psychological capital includes features that can be developed, such as self-efficacy, hope, optimism, resilience, etc. that individuals possess (Luthans & Youssef, 2004, p. 148). A detailed explanation will be given in the following section.

Psychological capital focuses on understanding and improving the strengths and positive aspects of individuals and aims to teach individuals situations in which they can be happier, successful, and good. The concept of psychological capital has become the focal point of the business community in improving productivity and job performance. Positive psychological capital refers to the psychological development of an individual in a positive sense. With the development as mentioned above, individuals, by undertaking the tasks that seem difficult and in terms of displaying the necessary effort in order to accomplish these tasks successfully, must have features, such as being self-confident, thinking positively about achieving success in the present and future, showing effort to be successful within the scope of objectives and re-evaluating the paths to success that are needed when necessary, recovering, and continuing to achieve success even if it is covered with problems and troubles (Luthans, Youssef, & Avolio, 2006, p. 3).

The dimensions of psychological capital directly affect professional and organizational identification, and they are also indirectly related to the levels of perception of professional life project. From this point of view, organizational and professional identification of employees is in close relationship not only with their individual skills but also with the use of these individual skills in their organizational and professional lives and turning them into success (Erkuş & Fındıklı, 2013, p. 310).

In working life, focusing only on the negative aspects of individuals’ behaviors and considering the negative sides of all the consequences brought about the result that business life is evaluated as a ball of problems and employees are seen as people who disappear in this cycle and make things even more complex.

**Positive Psychology**

The three known goals of psychology in the historical process were to discover and educate gifted individuals by treating mental illnesses, providing a more livable life for individuals in good condition and finally revealing the potential of individuals (Hodges, 2010, p. 3).

The concept of positive psychology was first proposed by Abraham H. Maslow, Erich Fromm, and Carl Rogers in the context of humanistic psychology in 1960, which emphasizes the importance of psychology in terms of improving the existing problems of individuals as well as contributing to their happiness and personal development. In 1998, Martin E. P. Seligman, the president of the American Psychological Association, named the approach. Positive psychology is a new trend that focuses on the correctness rather than the mistakes that occur in individuals (Güler, 2008, p. 199).

As can be seen in Figure 1, it is interpreted that two different perspectives emerge according to organizations based on positive psychology and that the concept of positive psychological capital bears the characteristics of positive organizational behavior flow.
A FIELD RESEARCH ON THE MEASUREMENT OF PSYCHOLOGICAL CAPITAL

A Research on the Measurement of Psychological Capital

Purpose and Scope of the Research

The aim of this study was to measure the perception levels of the sub-dimensions of psychological capital, which are hope, resilience, optimism, and self-efficacy, in the employees of Mersin Municipality working in the status of civil servants and workers, and to determine whether there are significant differences in their psychological capital in terms of demographic variables, such as gender, age, marital status, working time, educational status, household income, and service period.

Sample Selection and Data Collection

In empirical research, it is very important that the sample number has a structure that provides robust results in order to avoid bias and systematic error in the process of data collection.

In this study, questionnaires were applied to the employees of Mersin Municipality civil servants and workers by face-to-face method. In the data entry phase, a total of 23 questionnaires were excluded from the analysis due to the fact that most of the questions were left blank, and a total of 431 questionnaires were used for the application. Six thousand and six hundred people work as civil servants and workers in Mersin Municipality. So, the total population is 6,600 people. When 10,000 people are considered as the total population in Table 1, for \( p = 0.5 \) and \( q = 0.5 \), the sample of 370 is sufficient.

In this study, both group difference and relationship analysis will be performed. Power analysis was performed with G*POWER 3.1 version in order to determine the potential of the number of the municipal employees who agreed to participate in the survey in terms of producing robust results. In the studies conducted by Cohen (1988) and Prajapati, Dunne, and Armstrong (2010), it was determined that statistical power at \( 1 - \beta = 0.95 \) was sufficient, and the results were obtained by stating that relations and group differences would be calculated. Statistical significance level was determined as \( \alpha = 0.05 \).

As a result of the power analysis, it was determined that the study would be valid if at least 115 samples were used. In this study, 431 samples were used and it was determined that the analyses to be performed would yield reliable results.
### Table 1
**Sample Size Table**

| Total population size | ±0.03 sampling error (d) | ±0.05 sampling error (d) | ±0.10 sampling error (d) |
|------------------------|---------------------------|---------------------------|---------------------------|
|                        | p = 0.5 q = 0.5 | p = 0.8 q = 0.2 | p = 0.3 q = 0.7 | p = 0.5 q = 0.5 | p = 0.8 q = 0.2 | p = 0.3 q = 0.7 | p = 0.5 q = 0.5 | p = 0.8 q = 0.2 | p = 0.3 q = 0.7 |
| 100                    | 92 | 87 | 90 | 80 | 71 | 77 | 49 | 38 | 45 |
| 500                    | 341 | 289 | 321 | 217 | 165 | 196 | 81 | 55 | 70 |
| 750                    | 441 | 358 | 409 | 254 | 185 | 226 | 85 | 57 | 73 |
| 1,000                  | 516 | 406 | 473 | 278 | 198 | 244 | 88 | 58 | 75 |
| 2,500                  | 748 | 537 | 660 | 333 | 224 | 286 | 93 | 60 | 78 |
| 5,000                  | 880 | 601 | 760 | 357 | 234 | 303 | 94 | 61 | 79 |
| 10,000                 | 964 | 639 | 823 | 370 | 240 | 313 | 95 | 61 | 80 |
| 25,000                 | 1,023 | 665 | 865 | 378 | 244 | 319 | 96 | 61 | 80 |
| 50,000                 | 1,045 | 674 | 881 | 381 | 245 | 321 | 96 | 61 | 81 |
| 100,000                | 1,056 | 678 | 888 | 383 | 245 | 322 | 96 | 61 | 81 |
| 1,000,000              | 1,066 | 682 | 896 | 384 | 246 | 323 | 96 | 61 | 81 |
| 100 million            | 1,067 | 683 | 896 | 384 | 245 | 323 | 96 | 61 | 81 |

Source: Yazıcıoğlu and Erdoğan (2004, p. 50).

*Figure 2. Power analysis results screen shot for correlation analysis.*
As a result of the power analysis, it was determined that the study would be valid if at least 176 samples were used in group difference tests. In this study, 431 samples were used and it was shown that the analyses to be performed would be reliable.

Assumptions and Limitations of the Research

It was assumed that the participants expressed their true feelings and thoughts while answering the questions in the scale. It was accepted that the participants voluntarily responded to the questionnaire and answered it correctly and completely. It was accepted that the participants understood the words literally when answering the questions. Conceptual misconceptions that could occur were ignored.

There were some difficulties in increasing the number of samples in the survey and the employees stated that they would not participate in the study due to their intense work. The fact that employees did not view participation in the survey positively could be considered an important limitation. On the other hand, the survey was conducted during working hours between 02.12.2017 and 15.12.2017, and the employees who were on leave and were at hospital were excluded from the sample.
Data Collection Method and Tool

In order to determine the level of psychological capital, a 24-item with 5-point Likert scale “PsyCap Questionnaire (PCQ)” developed by Luthans et al. (2007a; 2007b) was used. There are four sub-components of this scale. On the psychological capital scale, Items 1 to 6 measure optimism, 7 to 12 hope, 13 to 18 resilience, and 19 to 24 self-efficacy, respectively. Items 1, 3, and 16 on the scale are reverse questions and their codes are adapted when entering data to the computer. In the original scale, the number and order of the items are different. In this study, the format which was adapted to Turkish and tested for validity and reliability by Çetin and Basım (2012) was taken as the basis. The 5-point Likert scale used in the relevant sections of the questionnaire was coded as “1 = Never”, “2 = Rarely”, “3 = Occasionally”, “4 = Frequently”, and “5 = Always”. The first part of the questionnaire is intended to measure general and demographic information about the participants and the institution. The second part covers the psychological capital scale.

The Turkish adaptation of the psychological capital scale was made by Çetin and Basım (2012). And in that study which they carried out on two different samples, they found the reliability coefficients of the scale as 0.67 for optimism, 0.81 for hope, 0.68 for psychological resilience, and 0.85 for self-efficacy, and the overall reliability coefficient of the scale was found to be 0.91, and thus they reported that the reliability and validity of the scale were acceptable.

Hypotheses of the Research

The hypotheses to be tested in line with the purpose of the research were determined as follows:

H1: The “hope” dimension of psychological capital components varies across gender, age, marital status, working time, education level, household income, and service period.

H2: “Resilience” dimension of psychological capital components varies across gender, age, marital status, working time, education level, household income, and service period.

H3: The “optimism” dimension of psychological capital components varies across gender, age, marital status, working time, education level, household income, and service period.

H4: The “hope” dimension of psychological capital components varies across gender, age, marital status, working time, education level, household income, and service period.

H5: The components of psychological capital, hope, resilience, optimism, and self-efficacy are positively correlated with each other.

Data Analysis and Findings

Research Method

The data obtained from the scale used in the study were analyzed using IBM SPSS 22.0 package program. In the first stage, frequency distributions related to general information on demographic information were presented. In the second stage, reliability and validity analyses were performed by examining the distribution of the scale used in the study. Exploratory Factor Analysis (EFA) was used first to test the hypotheses. Afterwards, Kolmogorov-Smirnov and Shapiro-Wilk normality tests were performed for each dimension of the psychological capital scale, which was subdivided into sub-dimensions. Since the distribution of the data did not fit the normal distribution, in order to test group differences, Mann-Whitney-U test for each paired group and Kruskal Wallis tests for triple and multiple groups were performed. Mean rank values were examined to determine the source of the differences between the groups. Kendall’s Tau-b correlation analysis was used to test the relationship analysis since the scale was not compatible with the normal distribution.
Questionnaire Reliability Analysis

The most common tests to test the reliability of a scale are “Cronbach alpha, split-half, parallel, and absolute parallel (strict)”. When Cronbach alpha test results are above 70%, it indicates that the survey was successful. Some researchers expect this value to be over 75%. The fact that the other reliability criteria are above 70% indicates that the internal consistency of the questionnaire is ensured and inferences can be trusted. As can be seen from Table 2, the percent values indicated and expected to be at the end of all four tests met the confidence criterion. Therefore, it was concluded that the sample results were consistent and reliable with high reliability values. Since all the reliability criteria that were considered exceeded 70%, it was determined that the survey was successful, that the survey was consistent in itself, and that the results would reflect the real values.

Table 2
Reliability Analysis Results

| Reliability results of the questionnaire |  |
|-----------------------------------------|---|
| Cronbach alpha                          | 0.921 |
| Split                                   | 0.920-0.923 |
| Parallel                                | 0.920 |
| Strict                                  | 0.922 |

Descriptive Analyses

Frequency distribution analysis of demographic variables.

Table 3
Frequency Distribution Table for Gender Variable

| Gender  | Frequency | Percentage | Valid percentage | Cumulative percentage |
|---------|-----------|------------|------------------|-----------------------|
| Male    | 259       | 60.1       | 60.1             | 60.1                  |
| Female  | 172       | 39.9       | 39.9             | 100.0                 |
| Total   | 431       | 100.0      | 100.0            |                       |

Table 4
Frequency Distribution Table for Educational Status Variable

| Educational Level       | Frequency | Percentage | Valid percentage | Cumulative percentage |
|-------------------------|-----------|------------|------------------|-----------------------|
| Primary school          | 25        | 5.8        | 5.8              | 5.8                   |
| High school             | 122       | 28.3       | 28.3             | 34.1                  |
| Associate degree        | 130       | 30.2       | 30.2             | 64.3                  |
| Bachelor’s degree       | 111       | 25.8       | 25.8             | 90.0                  |
| Master’s degree         | 43        | 10.0       | 10.0             | 100.0                 |
| Total                   | 431       | 100.0      | 100.0            |                       |

Table 5
Frequency Distribution Table for Marital Status Variable

| Marital Status          | Frequency | Percentage | Valid percentage | Cumulative percentage |
|-------------------------|-----------|------------|------------------|-----------------------|
| Married                 | 205       | 47.6       | 47.6             | 47.6                  |
| Single                  | 188       | 43.6       | 43.6             | 91.2                  |
| Divorced/Widowed        | 38        | 8.8        | 8.8              | 100.0                 |
| Total                   | 431       | 100.0      | 100.0            |                       |
Table 6

**Frequency Distribution Table for Age Variable**

| Age Variable      | Frequency | Percentage | Valid percentage | Cumulative percentage |
|-------------------|-----------|------------|------------------|-----------------------|
| 29 and below      | 144       | 33.4       | 33.4             | 33.4                  |
| Between 30 and 39 | 193       | 44.8       | 44.8             | 78.2                  |
| Between 40 and 49 | 77        | 17.9       | 17.9             | 96.1                  |
| 50 and above      | 17        | 3.9        | 3.9              | 100.0                 |
| Total             | 431       | 100.0      | 100.0            |                       |

Table 7

**Frequency Distribution Table for Monthly Average Household Income Variable**

| Monthly Average Household Income Variable | Frequency | Percentage | Valid percentage | Cumulative percentage |
|------------------------------------------|-----------|------------|------------------|-----------------------|
| Less than 1,500 TL                       | 6         | 1.4        | 1.4              | 1.4                   |
| 1,500-2,499 TL                           | 21        | 4.9        | 4.9              | 6.3                   |
| 2,500-3,499 TL                           | 129       | 29.9       | 29.9             | 36.2                  |
| 3,500-4,499 TL                           | 170       | 39.4       | 39.4             | 75.6                  |
| 4,500-5,500 TL                           | 65        | 15.1       | 15.1             | 90.7                  |
| More than 5,500 TL                       | 40        | 9.3        | 9.3              | 100.0                 |
| Total                                    | 431       | 100.0      | 100.0            |                       |

Table 8

**Frequency Distribution Table for Total Professional Service Period Variable**

| Total Professional Service Period Variable | Frequency | Percentage | Valid percentage | Cumulative percentage |
|--------------------------------------------|-----------|------------|------------------|-----------------------|
| 1 to 5 years                               | 133       | 30.9       | 30.9             | 30.9                  |
| 6 to 10 years                              | 122       | 28.3       | 28.3             | 59.2                  |
| 11 to 15 years                             | 87        | 20.2       | 20.2             | 79.4                  |
| 16 to 20 years                             | 63        | 14.6       | 14.6             | 94.0                  |
| 21 years and above                         | 26        | 6.0        | 6.0              | 100.0                 |
| Total                                      | 431       | 100.0      | 100.0            |                       |

Table 9

**Frequency Distribution Table for Working Period in the Current Institution Variable**

| Working Period in the Current Institution Variable | Frequency | Percentage | Valid percentage | Cumulative percentage |
|---------------------------------------------------|-----------|------------|------------------|-----------------------|
| 1 to 5 years                                      | 157       | 36.4       | 36.4             | 36.4                  |
| 6 to 10 years                                     | 124       | 28.8       | 28.8             | 65.2                  |
| 11 to 15 years                                    | 29        | 6.7        | 6.7              | 71.9                  |
| 16 to 20 years                                    | 44        | 10.2       | 10.2             | 82.1                  |
| 21 years and above                                | 77        | 17.9       | 17.9             | 100.0                 |
| Total                                             | 431       | 100.0      | 100.0            |                       |

**Frequency distribution results for psychological capital scale dimensions.** In the study, the average overall response rate was 4.13 for 4 dimensions. If the average response score of the participants was 4.13 and above, psychological capital perception was high and those who were below 4.13 had low psychological capital.

Table 10

**Frequency Distribution Table for Mersin Municipality Employees’ Perception of Psychological Capital**

| Perception of Psychological Capital | Frequency | Percentage | Valid percentage | Cumulative percentage |
|-------------------------------------|-----------|------------|------------------|-----------------------|
| Low perception of psychological capital | 147       | 34.1       | 34.1             | 34.1                  |
| High perception of psychological capital | 284       | 65.9       | 65.9             | 100.0                 |
| Total                               | 431       | 100.0      | 100.0            |                       |
Table 11

Frequency Distribution Analysis for Optimism Dimension

| Item                                                                 | Never | Rarely | Occasionally | Frequently | Always | Avg. ± SD |
|----------------------------------------------------------------------|-------|--------|--------------|------------|--------|-----------|
| 1. In this workplace, things usually do not run the way I want.     | 1.9   | 2.1    | 11.1         | 6.5        | 78.4   | 4.58 ± 0.904 |
| 2. When there are uncertainties for me in my work, I always deserve the best. | 31.3  | 2.8    | 9.3          | 23.7       | 32.9   | 3.24 ± 1.668 |
| 3. If something is going to go wrong for me in my work, it definitely goes that way. | 14.4  | 14.4   | 17.4         | 11.4       | 42.5   | 3.53 ± 1.501 |
| 4. I always see the good side of my work.                            | 2.1   | 2.1    | 17.4         | 20.0       | 58.5   | 4.31 ± 0.969 |
| 5. I am optimistic about what will happen to me in the future regarding my work. | 2.1   | 4.4    | 12.3         | 18.8       | 62.4   | 4.35 ± 0.995 |
| 6. I approach the events that I encounter about my work saying "every cloud has a silver lining". | -     | -      | 8.8          | 36.7       | 54.5   | 4.46 ± 0.652 |

General 4.07 ± 0.553

Note: * Percentage values are presented by adapting codes for inverse questions.

Table 12

Frequency Distribution Analysis for Optimism Dimension

| Item                                                                 | Never | Rarely | Occasionally | Frequently | Always | Avg. ± Sd. |
|----------------------------------------------------------------------|-------|--------|--------------|------------|--------|------------|
| 7. I am fulfilling the business goals I have determined for myself at this time. | 3.9   | 4.9    | 12.5         | 11.4       | 67.3   | 4.33 ± 1.114 |
| 8. I think there are many ways to solve any problem.                 | 6.5   | 23.7   | 7.9          | 27.4       | 34.6   | 3.6 ± 1.341  |
| 9. If I find myself in a dilemma while working, I think of many ways to get rid of this situation. | 1.9   | 7.9    | 15.1         | 49.0       | 26.2   | 3.99 ± 2.149 |
| 10. I see myself as very successful in my work right now.            | 7.2   | 13.2   | 19.7         | 28.5       | 31.3   | 3.64 ± 1.248 |
| 11. I strictly follow the objectives related to my work.            | -     | -      | 10.2         | 33.9       | 55.9   | 4.46 ± 0.673 |
| 12. I think of many ways to achieve my current work goals.          | 1.4   | 3.2    | 9.3          | 18.8       | 67.3   | 4.47 ± 0.894 |

General 4.08 ± 0.398

Table 13

Frequency Distribution Analyses for Resilience Dimension

| Item                                                                 | Never | Rarely | Occasionally | Frequently | Always | Avg. ± Sd. |
|----------------------------------------------------------------------|-------|--------|--------------|------------|--------|------------|
| 13. If I have to, I can do my job on my own.                         | -     | -      | 10.7         | 28.5       | 60.8   | 4.50 ± 0.682 |
| 14. I feel that I can handle things that may arise about my work on my own. | 1.4   | 33.4   | 20.6         | 21.8       | 22.7   | 3.31 ± 1.193 |
| 15. I usually handle the difficulties in my work in some way.        | 5.3   | 22.0   | 19.5         | 37.6       | 15.5   | 3.36 ± 1.142 |
| 16. When I encounter something wrong in my work, I have trouble getting over it. | 17.9  | 17.9   | 16.9         | 16.0       | 31.3   | 3.25 ± 1.500 |
| 17. I usually handle the stressful things in my work in a calm way.  | 2.3   | 9.3    | 23.0         | 26.0       | 39.4   | 3.91 ± 1.095 |
| 18. Because I have had difficulties before, I believe that I will overcome the difficulties related to my work. | 0.9   | 1.4    | 5.6          | 66.1       | 26.0   | 4.15 ± 0.659 |

General 3.74 ± 0.518

Note: * Percentage values are presented by adapting codes for inverse questions.
Table 14

Frequency Distribution Analysis for Self-Efficacy Dimension

|                                | Never | Rarely | Occasionally | Frequently | Always | Avg. ± Sd. |
|--------------------------------|-------|--------|--------------|------------|--------|------------|
| 19. I trust myself when presenting information to my colleagues. | 0.5   | 0.2    | 3.9          | 19.0       | 76.3   | 4.71 ± 0.598 |
| 20. I trust myself in setting goals/objectives in my work area.   | 0.5   | 0.5    | 5.3          | 19.7       | 74.0   | 4.66 ± 0.644 |
| 21. I trust myself in explaining my own field of work in the meetings which also include the management. | 0.7   | 2.1    | 5.6          | 19.0       | 72.6   | 4.61 ± 0.748 |
| 22. I trust myself while trying to find a solution to a long-term problem. | 0.2   | 2.3    | 10.4         | 17.9       | 69.1   | 4.53 ± 0.791 |
| 23. I trust myself in contributing to the discussions on the strategy of the organization. | -     | -      | 9.7          | 27.8       | 62.4   | 4.53 ± 0.667 |
| 24. I trust myself when contacting external parties (suppliers, consumers) to discuss problems. | -     | -      | 7.2          | 30.2       | 62.6   | 4.55 ± 0.626 |
| General                                                                |       |        |              |            |        | 4.60 ± 0.074 |

Exploratory Factor Analysis

In the exploratory factor analysis process for the scales, the suitability of the data to factor analysis was first tested. Accordingly, the Kaiser-Meyer-Olkin (KMO) sample adequacy of the data set was found to be 0.935, which is above the good value of 0.70. The Bartlett sphericity test, which measures the consistency of the items/variables analyzed, was found statistically significant ($\chi^2 = 4581.367$ and $p = 0.000$). As a result of the tests, it was determined that the sample to be used for exploratory factor analysis was sufficient and the suitability of the factor analysis was determined.

After confirming the suitability of the data set with the tests, “varimax” rotation method and principal components analysis method were applied as factor retention method in order to reveal the factor structure. In the factor structure, a 4-factor structure explaining 76.79% of the total variance was determined. As a result of factor analysis, questions whose value is below 0.20 in the extraction column should be excluded from the analysis as Costello and Osborne (2005) stated that their effect on variance change is negligible.

In the studies conducted in the social sciences, the variance explained in the multi-factor designed between 40% and 60% is considered sufficient. Since the six dimensions explained 76.79% of the change in the variance, the explanatory rate of the factors was found to be sufficient.

Group Difference Tests

The normality test was applied to the factors obtained as a result of factor analysis.

Table 15

Normality Test

|          | Kolmogorov-Smirnov |       |       | Shapiro-Wilk |       |
|----------|--------------------|-------|-------|--------------|-------|
|          | Statistics | SD | $p$   | Statistics | SD | $p$ |
| Optimism | 0.141       | 431 | 0.000 | 0.935       | 431 | 0.000 |
| Hope     | 0.074       | 431 | 0.000 | 0.974       | 431 | 0.000 |
| Self-efficacy | 0.299   | 431 | 0.000 | 0.768       | 431 | 0.000 |
| Resilience      | 0.055      | 431 | 0.003 | 0.978       | 431 | 0.000 |
As can be seen in both normality test results, since $p < 0.05$ value is obtained, $H_1$ hypothesis is accepted, which indicates that normal distribution is not provided.

Relationship Analysis

It is accepted that there are significant relationships between optimism, hope, resilience, and self-efficacy, which are the dimensions of psychological capital, which is the sub-hypothesis of the study. Kendall’s Tau-b correlation analysis was performed because the data did not provide a normal distribution.

Table 16

| Relationship Analysis Results of Psychological Capital Dimensions |
|---------------------------------------------------------------|
|                  | Self-efficacy | Resilience | Optimism | Hope |
| Self-efficacy    | r 1           | 0.716*     | 0.734*   | 0.751* |
| p                 | 0.000         | 0.000      | 0.000    |       |
| Resilience       | r 1           | 0.640*     | 0.699*   |       |
| p                 | 0.000         | 0.000      |         |       |
| Optimism         | r 1           |           | 0.796*   |       |
| p                 | 0.000         |           |         |       |
| Hope             | r 1           |           |         |       |

Note. * Statistically significant relationship for 0.05 and 0.01.

As self-efficacy increases, resilience will increase to 71.6%, optimism will increase to 73.4%, and hope will increase to 75.1%. As resilience increases, optimism will increase to 64%, and hope dimension will increase to 69.9%. As optimism increases, hope dimension will increase to 79.6%. Positive and high relationships were determined between all dimensions. In order to increase the perception of psychological capital, it is necessary to increase the perception levels of the components. Thus, the sub-hypotheses were also confirmed.

Conclusion and Suggestions

Organizations aim to ensure the highest level of return in return for the products or services they produce. The traditional types of capital required for this purpose are not sufficient by themselves. Today, the fact that tools, such as economic capital, technology, R&D studies, public relations, and marketing strategies can be replicated by competing organizations makes it difficult for organizations to gain edge in competition. At this point, the human factor comes into play.

Human capital is the most important type of capital for organizations. This precious capital affects business priorities and strategic perspective. Psychological capital is one of the factors that make significant differences in the performance of human capital. Today, many organizations expect their employees to be more creative, comment on the organization and take more responsibility. It has been determined that psychological capital is related to many positive results for employees and organizations in management research. Thus, the concept of psychological capital emerges as positive human resource capital, which continues to develop and continues to be studied with its potential elements.

The fact that employees with high psychological capital have better job performance makes it necessary for human resources managers to make more systematic and planned efforts to improve the psychological capital of employees in their organizations. First of all, exploratory studies can be carried out to determine the
level of psychological capital of the current employees and their suitability with their jobs. For this purpose, the process of determining the “psychological capital profile” of the organization and the “organizational psychological capital profile” can be applied. These applications can be extended to include different business units. In the long term, it is possible to make more general inferences with averages on a sectoral and country basis.

In the study, all dimensions for gender differed statistically significantly. Women and men responded to psychological capital dimensions from different perspectives. Mean rank values were examined for the source of the difference. Women gave more positive answers to the optimism dimension (mean rank value was higher), men gave more positive answers to the hope dimension, men gave more positive answers to the resilience dimension, and women gave more positive answers to the self-efficacy dimension.

All dimensions for average monthly household income differed statistically significantly. While the psychological capital components were more positive as income increased, it decreased to negative as income decreased. In this case, income growth is a factor that strengthens psychological capital.

The psychological capital levels of the employees can be used as basic data in the stages of training planning, performance evaluation, and career planning. It can be ensured that psychological capital development trainings are taken in order to ensure the development of important business outputs, particularly performance improvement. In addition, while the data on psychological capital levels provide an important input in the performance evaluation process, in case of a decrease in performance, it can serve as an important tool for the identification and elimination of performance problems in individual, group, and departmental dimensions. These data can be used for career development goals in shifting employees to tasks that are appropriate to their level of psychological capital in the career planning, or training them for positions considered.

In addition, individuals’ psychological capital data can be used as a “selection criterion” in the recruitment and placement process. By reviewing human resources policies and taking into account the nature of the work concerned, organizations can assign candidate employees to jobs that are appropriate to their psychological capital levels and use this information as a criterion for their placement in the appropriate job.

It may be possible to make the organization more authentic by making the organization more positive and more supportive in organizations in which employees with high psychological capital are employed due to the nature of the work. In addition, more opportunities will be provided for employees to turn their psychological capital into desired organizational outcomes. Although this process spans over a long period of time, the planned and systematic effort will enable the organization to gain competitive advantage and turn this power into a self-capability.

The most important quality of psychological capital is that its components of hope, optimism, self-efficacy and resilience are measurable and open to development. These features, which are stated to have an effect that increases performance, provides job satisfaction, and thus increases the happiness of the individual in working life, should be gained by individuals through the necessary trainings. In order to increase the level of positive psychological capital, to increase employees’ commitment to the organization, and to ensure their continuity in the organization, employers need to create appropriate conditions for employees, support training and career plans, set achievable goals, reduce risks, and increase support and ensure that the employee is willing to stay in the organization through such practices.
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