



## Use of the IMF SWARA Method in Personnel Selection and its Solution



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**Abstract:** It could be argued that the competitive resources possessed by organisations today are similar. One of the most important factors that differentiates businesses, provides a competitive advantage, and enables them to stay one step ahead of their competitors is human capital. Organisations’ ability to act in line with their mission, vision, and goals depends on the effective and efficient management of this capital. Selecting the right personnel is one of the most important stages in managing human resources effectively and efficiently. If the selected personnel do not perform as expected, it can indeed harm the organisation. The purpose of this study is therefore to identify the selection criteria prioritised by human resources managers in a call centre, a hospital, a bank, a public economic enterprise, and two companies operating in an organized industrial zone in personnel selection. The criteria prioritised in personnel selection were first collected during initial interviews with relevant managers to create a pool of criteria. Ten of these criteria were then presented to the managers in a second interview, and they were asked to rank them in order of importance. Data obtained from each manager was analysed using the IMF-SWARA method. According to the results, the most important criterion for managers was “Position and competency alignment (PCA)”, while the least important criterion was “solving problems promptly and effectively (SPP)”. These findings demonstrate that managers prioritise compatibility between the qualities of the job and those of the personnel. It is believed that these results can guide managers in organisations operating in the relevant sector, as well as individuals considering working in this sector.

**Keywords:** Personnel selection; IMF-SWARA; Call centre; Hospital; Bank; Public economic enterprise

### 1 Introduction

In today’s world, the impact of globalization has made economic, technological, and cultural boundaries between countries increasingly permeable, affecting the competitive conditions for businesses. In this new order, the quality of a company’s human resources and its ability to manage these resources effectively have become important factors in achieving sustainable competitive advantage and distinguishing itself from its competitors to gain a strong position in the market. Indeed, in intense competitive conditions, the knowledge, skills, and abilities of the human resources possessed have become more decisive in achieving business goals than traditional resources such as location, raw materials, and technology.

The core activities of human resource management are defined as predicting future human resource needs, conducting workforce planning, performing job analysis and job design, finding, selecting, retaining, and improving the performance of personnel suited to the job’s characteristics, all within the framework of the organization’s mission, vision, and strategy [1]. One of the most important stages of these activities is the personnel selection process.

Personnel selection is critical to the efficiency and sustainable success of businesses because the selected personnel must be trained, nurtured, and developed in order to implement the defined strategies and achieve the objectives.

Failure to select the right candidate can lead to inefficient use of resources allocated for training, development, and improvement, as well as time and financial losses, incompatibility, inefficiency, loss of competitive advantage, or falling behind competitors. Furthermore, it may force businesses to re-enter the recruitment process, thereby increasing costs related to hiring, training, salaries, additional payments, and termination. On the other hand, selecting the right personnel can facilitate the achievement of business goals, increase the success of the human resources department, and ensure that the selected candidate is successful in their role. Therefore, it is crucial to carefully evaluate the skills of candidates in line with the basic competencies required for each position and to identify the most suitable candidates.

The personnel selection process can also be explained by the Person-Organization Fit Theory. According to this theory, there must be a fit between the organization's demands, values, norms, and goals, and the individual's characteristics, values, goals, knowledge, skills, abilities, experience, effort, and commitment [2]. If this fit is not achieved, it can be said that organizational resources are not being used effectively and efficiently enough.

Personnel selection has become a critical managerial decision of increasing strategic importance for businesses. Decision-making in this process, defined as choosing among various alternatives [3], plays a vital role in identifying the most suitable candidate. Decision-makers should prefer analytical and fast-acting methods to prevent waste of resources and time when identifying candidates to be hired. Within the specified framework, this study addresses personnel selection as a Multi-Criteria Decision Making (MCDM) problem. Using this method, the personnel selection process of a call center serving over 9,000 employees across 8 locations, a hospital, a regional bank office, a public economic enterprise, and two companies operating in an organized industrial zone has been examined in detail.

## 2 Literature Review

During the literature review period, it was observed that Multi-Criteria Decision Making (MCDM) methods were preferred in solving personnel selection problems. Indeed, Yenilmez and Ertuğrul [4] used the PIPRECIA and COPRAS methods for blue-collar personnel in a business. Tuğrul [5] used TOPSIS for personnel selection for a business, while Demirci [6] used the PSI method. Ersoy [7] used the EDAS and CODAS methods for personnel selection in the software sector. Ulucan and Aksakal [8] used the TOPSIS, SWARA, and PIPRECIA methods for personnel selection in the aviation sector. Danişan et al. [9] used the WS, AHP, TOPSIS, and PROMETHEE methods for personnel selection in the ready-to-wear sector. Dumnić et al. [10] used the Choquet Integral method for personnel selection in the postal and logistics center. Nguyen [11] used the GA-GDEMATEL method for personnel selection in agriculture, manufacturing, and services companies. Andrejić and Pajić [12] used the BWM and CoCoSo methods for personnel selection in the transportation sector. Bahri et al. [13] used the h-AHP method for selecting personnel to work in the maritime logistics sector. Heidary Dahooie et al. [14] used the ARAS-G and SWARA methods for personnel selection in the information technology (IT) sector; Samanlıoğlu et al. [15] used the AHP and TOPSIS methods; Sadeghzadeh et al. [16] used the DEMATEL and ANP methods. Gelgör and Can [17] used the AHP method for personnel selection at a company operating in the textile sector. Kurnaz et al. [18] used the grey SWARA method for military helicopter pilot selection. Dugger et al. [19] used MCDM for pilot selection. Mızrak [20] used the AHP and TOPSIS methods. Akhif et al. [21] used the SMART method for contract personnel selection. Khalil et al. [22] used the TOPSIS method for personnel selection in the healthcare sector. Andrejić and Pajić [23] used the BWM and CoCoSo methods for personnel selection in the transportation sector. Popović [24] used the SWARA and CoCoSo methods for personnel selection in public and private sector organizations. Akmaludin et al. [25] used the AHP and SWARA methods for leader selection. Gottwald et al. [26] used the ARAS method to select the best possible PhD candidate. Biswas et al. [27] used the LOPCOW method for sales representative selection. Bošković et al. [28] used the FULLEX and ARAS methods for personnel selection in the maritime sector. Ersoy and Ersoy [29] used the Entropy and RAPS methods for selecting a human resources manager for an accommodation facility. Paraskevas and Madas [30] used the N-AHP and N-DM methods for academic selection. Setiawansyah [31] used Entropy and TOPSIS for selecting information technology personnel (IT Personnel); Aggarwal et al. [32] used the AHP and TOPSIS methods. Ulutaş et al. [33] used the PIPRECIA-G and OCRA-G methods to select a manager in charge of production. Li et al. [34] used the LGBWM and IFNs methods for state-owned company personnel selection.

## 3 Methodology

This research employed the IMF-SWARA method to derive the weights of the criteria. The procedure of this method is delineated below [35].

Step 1: After determining all selection criteria, rank them in descending order based on their predicted level of importance. As a result, the most important criterion should come first, and the least important should come last.

Step 2: During the process of establishing the relative significance ratio of each criterion, beginning with the second criterion, the importance level is assessed for all criteria in comparison to the preceding criterion. This

assessment is conducted utilizing the linguistic terminology outlined in Table 1. Therefore, for each criterion, the relative importance ratio ( $\tilde{s}_j$ ) is established in relation to the antecedent criterion.

**Table 1.** Linguistic values and their fuzzy corresponding numbers [35]

Linguistic Values	Fuzzy Numbers (Fractional)	Fuzzy Numbers (Decimal)
Equally important	(0, 0, 0)	(0, 0, 0)
Weakly less important	(2/9, 1/4, 2/7)	(0.2222, 0.25, 0.2857)
Moderately less important	(1/4, 2/7, 1/3)	(0.25, 0.2857, 0.3333)
Less important	(2/7, 1/3, 2/5)	(0.2857, 0.3333, 0.4)
Really less important	(1/3, 2/5, 1/2)	(0.3333, 0.4, 0.5)
Much less important	(2/5, 1/2, 2/3)	(0.4, 0.5, 0.6667)
Dominantly less important	(1/2, 2/3, 1)	(0.5, 0.6667, 1)
Absolutely less significant	(1, 1, 1)	(1, 1, 1)

Step 3: The fuzzy coefficient ( $\tilde{k}_j$ ) is derived in the following manner.

$$\tilde{k}_j = \begin{cases} \tilde{1} & j = 1 \\ \tilde{s}_j & j > 1 \end{cases} \quad (1)$$

Step 4: The recalculated fuzzy weights ( $\tilde{q}_j$ ) are determined as follows:

$$\tilde{q}_j = \begin{cases} \tilde{1} & j = 1 \\ \frac{\tilde{q}_{j-1}}{\tilde{k}_j} & j > 1 \end{cases} \quad (2)$$

Step 5: The fuzzy weights ( $\tilde{w}_j$ ) are determined using the subsequent equation:

$$\tilde{w}_j = (w_j^l, w_j^m, w_j^u) = \frac{\tilde{q}_j}{\sum_{k=1}^n \tilde{q}_k} \quad (3)$$

Step 6: Using this equation, fuzzy weights can be transformed into crisp weights.

$$w_j = \frac{w_j^l + 4 \times w_j^m + w_j^u}{6} \quad (4)$$

Step 7: The following equation is used to normalize crisp weights.

$$w'_j = \frac{w_j}{\sum_{j=1}^n w_j} \quad (5)$$

## 4 Results

A semi-structured survey was administered to managers at a call center, a hospital, a regional bank, a public economic enterprise, and two companies operating in an organized industrial zone. The criteria and their meanings, established based on the data obtained from these managers, are presented in Table 2.

The results of each manager using the IMF-SWARA method are shown in Table 3, Table 4, Table 5, Table 6, Table 7, and Table 8, respectively.

The ranking of the criteria based on their weights is presented in Table 3 as follows: PCA (0.2085), EXP (0.2085), OD (0.1620), CATR (0.1297), SCS (0.0926), SPP (0.0695), AT (0.0497), H (0.0357), OC (0.0255), and OCF (0.0183). Thus, as stated by Manager-1, the PCA criterion is regarded as the most significant, whereas the OCF criterion is considered the least significant.

The ranking of the criteria based on their weights is presented in Table 4 as follows: H (0.1992), AT (0.1992), OD (0.1493), OC (0.1194), OCF (0.0895), SCS (0.0698), CATR (0.0523), SPP (0.0523), PCA (0.0394) and EXP (0.0296). Thus, as stated by Manager-2, H and AT criteria are regarded as the most significant, whereas the EXP criterion is considered the least significant.

The ranking of the criteria based on their weights is presented in Table 5 as follows: PCA (0.2242), SCS (0.1492), OCF (0.1194), OD (0.0956), H (0.0956), SPP (0.0956), CATR (0.0767), AT (0.0597), OC (0.0478) and EXP (0.0360). Thus, as stated by Manager-3, the PCA criterion is regarded as the most significant, whereas the EXP criterion is considered the least significant.

**Table 2.** Criteria and definitions

Criteria	Definitions
Position and competency alignment (PCA)	Knowledge, skills, and competencies aligning with job requirements.
Experience (EXP)	Being able to transfer knowledge and skills gained from past experiences to work processes.
Openness to development (OD)	Demonstrating a positive attitude towards learning, change, and self-improvement.
Completing assigned tasks thoroughly and not interfering with others' responsibilities (CATR)	Establishing clear and effective communication and evaluating feedback constructively.
Strong communication skills and openness to feedback (SCS)	Establishing clear and effective communication and evaluating feedback constructively.
Solving problems promptly and effectively (SPP)	Analyzing problems in a timely manner and producing effective solutions.
Adaptable to teamwork (AT)	Contributing to common goals through cooperation.
Honesty (H)	Demonstrating ethical, truthful, and transparent behavior.
Organizational commitment (OC)	Embracing the organization's goals and values, and being willing to stay with and contribute to the organization.
Organizational culture fit (OCF)	Values and behaviors aligning with the organization's cultural norms.

**Table 3.** Criteria weights for Manager-1

Criteria	$\tilde{s}_j$	$\tilde{k}_j$	$\tilde{q}_j$	$\tilde{w}_j$	$w_j$	$w'_j$
PCA		(1, 1, 1)	(1, 1, 1)	(0.1957, 0.2086, 0.2249)	0.2092	0.2085
EXP	(0, 0, 0)	(1, 1, 1)	(1, 1, 1)	(0.1957, 0.2086, 0.2249)	0.2092	0.2085
OD	(0.25, 0.2857, 0.3333)	(1.25, 1.2857, 1.3333)	(0.75, 0.7778, 0.8)	(0.1468, 0.1622, 0.1799)	0.1626	0.1620
CATR	(0.2222, 0.25, 0.2857)	(1.2222, 1.25, 1.2857)	(0.5833, 0.6222, 0.6545)	(0.1141, 0.1298, 0.1472)	0.1301	0.1297
SCS	(0.3333, 0.4, 0.5)	(1.3333, 1.4, 1.5)	(0.3889, 0.4444, 0.4909)	(0.0761, 0.0927, 0.1104)	0.0929	0.0926
SPP	(0.2857, 0.3333, 0.4)	(1.2857, 1.3333, 1.4)	(0.2778, 0.3333, 0.3818)	(0.0544, 0.0695, 0.0859)	0.0697	0.0695
AT	(0.3333, 0.4, 0.5)	(1.3333, 1.4, 1.5)	(0.1852, 0.2381, 0.2864)	(0.0362, 0.0497, 0.0644)	0.0499	0.0497
H	(0.3333, 0.4, 0.5)	(1.3333, 1.4, 1.5)	(0.1235, 0.1701, 0.2148)	(0.0242, 0.0355, 0.0483)	0.0358	0.0357
OC	(0.3333, 0.4, 0.5)	(1.3333, 1.4, 1.5)	(0.0823, 0.1215, 0.1611)	(0.0161, 0.0253, 0.0362)	0.0256	0.0255
OCF	(0.3333, 0.4, 0.5)	(1.3333, 1.4, 1.5)	(0.0549, 0.0868, 0.1208)	(0.0107, 0.0181, 0.0272)	0.0184	0.0183

**Table 4.** Criteria weights for Manager-2

Criteria	$\tilde{s}_j$	$\tilde{k}_j$	$\tilde{q}_j$	$\tilde{w}_j$	$w_j$	$w'_j$
H		(1, 1, 1)	(1, 1, 1)	(0.187, 0.1992, 0.215)	0.1998	0.1992
AT	(0, 0, 0)	(1, 1, 1)	(1, 1, 1)	(0.187, 0.1992, 0.215)	0.1998	0.1992
OD	(0.2857, 0.3333, 0.4)	(1.2857, 1.3333, 1.4)	(0.7143, 0.75, 0.7778)	(0.1336, 0.1494, 0.1673)	0.1498	0.1493
OC	(0.2222, 0.25, 0.2857)	(1.2222, 1.25, 1.2857)	(0.5556, 0.6, 0.6364)	(0.1039, 0.1195, 0.1369)	0.1198	0.1194
OCF	(0.2857, 0.3333, 0.4)	(1.2857, 1.3333, 1.4)	(0.3969, 0.45, 0.495)	(0.0742, 0.0896, 0.1064)	0.0898	0.0895
SCS	(0.25, 0.2857, 0.3333)	(1.25, 1.2857, 1.3333)	(0.2977, 0.35, 0.396)	(0.0557, 0.0697, 0.0852)	0.0700	0.0698
CATR	(0.2857, 0.3333, 0.4)	(1.2857, 1.3333, 1.4)	(0.2126, 0.2625, 0.308)	(0.0398, 0.0523, 0.0662)	0.0525	0.0523
SPP	(0, 0, 0)	(1, 1, 1)	(0.2126, 0.2625, 0.308)	(0.0398, 0.0523, 0.0662)	0.0525	0.0523
PCA	(0.2857, 0.3333, 0.4)	(1.2857, 1.3333, 1.4)	(0.1519, 0.1969, 0.2396)	(0.0284, 0.0392, 0.0515)	0.0395	0.0394
EXP	(0.2857, 0.3333, 0.4)	(1.2857, 1.3333, 1.4)	(0.1085, 0.1477, 0.1864)	(0.0203, 0.0294, 0.0401)	0.0297	0.0296

**Table 5.** Criteria weights for Manager-3

Criteria	$\tilde{s}_j$	$\tilde{k}_j$	$\tilde{q}_j$	$\tilde{w}_j$	$w_j$	$w'_j$
PCA		(1, 1, 1)	(1, 1, 1)	(0.2044, 0.2243, 0.2543)	0.226	0.2242
SCS	(0.4, 0.5, 0.6667)	(1.4, 1.5, 1.6667)	(0.6, 0.6667, 0.7143)	(0.1226, 0.1495, 0.1817)	0.1504	0.1492
OCF	(0.2222, 0.25, 0.2857)	(1.2222, 1.25, 1.2857)	(0.4667, 0.5334, 0.5844)	(0.0954, 0.1196, 0.1486)	0.1204	0.1194
OD	(0.2222, 0.25, 0.2857)	(1.2222, 1.25, 1.2857)	(0.363, 0.4267, 0.4781)	(0.0742, 0.0957, 0.1216)	0.0964	0.0956
H	(0, 0, 0)	(1, 1, 1)	(0.363, 0.4267, 0.4781)	(0.0742, 0.0957, 0.1216)	0.0964	0.0956
SPP	(0, 0, 0)	(1, 1, 1)	(0.363, 0.4267, 0.4781)	(0.0742, 0.0957, 0.1216)	0.0964	0.0956
CATR	(0.2222, 0.25, 0.2857)	(1.2222, 1.25, 1.2857)	(0.2823, 0.3414, 0.3912)	(0.0577, 0.0766, 0.0995)	0.0773	0.0767
AT	(0.25, 0.2857, 0.3333)	(1.25, 1.2857, 1.3333)	(0.2117, 0.2655, 0.313)	(0.0433, 0.0595, 0.0796)	0.0602	0.0597
OC	(0.2222, 0.25, 0.2857)	(1.2222, 1.25, 1.2857)	(0.1647, 0.2124, 0.2561)	(0.0337, 0.0476, 0.0651)	0.0482	0.0478
EXP	(0.2857, 0.3333, 0.4)	(1.2857, 1.3333, 1.4)	(0.1176, 0.1593, 0.1992)	(0.024, 0.0357, 0.0507)	0.0363	0.0360

The ranking of the criteria based on their weights is presented in Table 6 as follows: PCA (0.2405), OC (0.1871), EXP (0.1871), CATR (0.1402), OCF (0.0934), H (0.0668), AT (0.0402), OD (0.0201), SCS (0.0136) and SPP (0.0110). Thus, as stated by Manager-4, the PCA criterion is regarded as the most significant, whereas the SPP criterion is considered the least significant.

The ranking of the criteria based on their weights is presented in Table 7 as follows: PCA (0.2702), CATR (0.2163), AT (0.1681), EXP (0.1260), SPP (0.0841), SCS (0.0506), OCF (0.0339), OD (0.0169), H (0.0169) and OC (0.0169). Thus, as stated by Manager-5, the PCA criterion is regarded as the most significant, whereas the OD, H, and OC criteria are considered the least significant.

The ranking of the criteria based on their weights is presented in Table 8 as follows: AT (0.1718), CATR

(0.1336), SPP (0.1336), OCF (0.1039), H (0.1039), EXP (0.1039), SCS (0.0808), PCA (0.0606), OC (0.0606) and OD (0.0472). Thus, as stated by Manager-6, the AT criterion is regarded as the most significant, whereas the OD criterion is considered the least significant.

Using the arithmetic mean method, the combined weights of the criteria are obtained by adding the weights that each manager assigned to each criterion. This creates the combined weights of the criteria. Table 9 presents the combined weights of the criteria.

**Table 6.** Criteria weights for Manager-4

Criteria	$\tilde{s}_j$	$\tilde{k}_j$	$\tilde{q}_j$	$\tilde{w}_j$	$w_j$	$w'_j$
PCA		(1, 1, 1)	(1, 1, 1)	(0.187, 0.1992, 0.215)	0.1998	0.2405
OC	(0.25, 0.2857, 0.3333)	(1.25, 1.2857, 1.3333)	(0.75, 0.7778, 0.8)	(0.1403, 0.155, 0.172)	0.1554	0.1871
EXP	(0, 0, 0)	(1, 1, 1)	(0.75, 0.7778, 0.8)	(0.1403, 0.155, 0.172)	0.1554	0.1871
CATR	(0.2857, 0.3333, 0.4)	(1.2857, 1.3333, 1.4)	(0.5357, 0.5834, 0.6222)	(0.1002, 0.1162, 0.1338)	0.1165	0.1402
OCF	(0.4, 0.5, 0.6667)	(1.4, 1.5, 1.6667)	(0.3214, 0.3889, 0.4444)	(0.0601, 0.0775, 0.0956)	0.0776	0.0934
H	(0.3333, 0.4, 0.5)	(1.3333, 1.4, 1.5)	(0.2143, 0.2778, 0.3333)	(0.0401, 0.0553, 0.0717)	0.0555	0.0668
AT	(0.5, 0.6667, 1)	(1.5, 1.6667, 2)	(0.1072, 0.1667, 0.2222)	(0.02, 0.0332, 0.0478)	0.0334	0.0402
OD	(1, 1, 1)	(2, 2, 2)	(0.0536, 0.0834, 0.1111)	(0.01, 0.0166, 0.0239)	0.0167	0.0201
SCS	(0.4, 0.5, 0.6667)	(1.4, 1.5, 1.6667)	(0.0322, 0.0556, 0.0794)	(0.006, 0.0111, 0.0171)	0.0113	0.0136
SPP	(0.2222, 0.25, 0.2857)	(1.2222, 1.25, 1.2857)	(0.025, 0.0445, 0.065)	(0.0047, 0.0089, 0.014)	0.0091	0.0110

**Table 7.** Criteria weights for Manager-5

Criteria	$\tilde{s}_j$	$\tilde{k}_j$	$\tilde{q}_j$	$\tilde{w}_j$	$w_j$	$w'_j$
PCA		(1, 1, 1)	(1, 1, 1)	(0.187, 0.1992, 0.215)	0.1998	0.2702
CATR	(0.2222, 0.25, 0.2857)	(1.2222, 1.25, 1.2857)	(0.7778, 0.8, 0.8182)	(0.1455, 0.1594, 0.176)	0.1599	0.2163
AT	(0.25, 0.2857, 0.3333)	(1.25, 1.2857, 1.3333)	(0.5834, 0.6222, 0.6546)	(0.1091, 0.124, 0.1408)	0.1243	0.1681
EXP	(0.2857, 0.3333, 0.4)	(1.2857, 1.3333, 1.4)	(0.4167, 0.4667, 0.5091)	(0.0779, 0.093, 0.1095)	0.0932	0.1260
SPP	(0.4, 0.5, 0.6667)	(1.4, 1.5, 1.6667)	(0.25, 0.3111, 0.3636)	(0.0468, 0.062, 0.0782)	0.0622	0.0841
SCS	(0.5, 0.6667, 1)	(1.5, 1.6667, 2)	(0.125, 0.1867, 0.2424)	(0.0234, 0.0372, 0.0521)	0.0374	0.0506
OCF	(0.4, 0.5, 0.6667)	(1.4, 1.5, 1.6667)	(0.075, 0.1245, 0.1731)	(0.014, 0.0248, 0.0372)	0.0251	0.0339
OD	(1, 1, 1)	(2, 2, 2)	(0.0375, 0.0623, 0.0866)	(0.007, 0.0124, 0.0186)	0.0125	0.0169
H	(0, 0, 0)	(1, 1, 1)	(0.0375, 0.0623, 0.0866)	(0.007, 0.0124, 0.0186)	0.0125	0.0169
OC	(0, 0, 0)	(1, 1, 1)	(0.0375, 0.0623, 0.0866)	(0.007, 0.0124, 0.0186)	0.0125	0.0169

**Table 8.** Criteria weights for Manager-6

Criteria	$\tilde{s}_j$	$\tilde{k}_j$	$\tilde{q}_j$	$\tilde{w}_j$	$w_j$	$w'_j$
AT		(1, 1, 1)	(1, 1, 1)	(0.187, 0.1992, 0.215)	0.1998	0.1718
CATR	(0.25, 0.2857, 0.3333)	(1.25, 1.2857, 1.3333)	(0.75, 0.7778, 0.8)	(0.1403, 0.155, 0.172)	0.1554	0.1336
SPP	(0, 0, 0)	(1, 1, 1)	(0.75, 0.7778, 0.8)	(0.1403, 0.155, 0.172)	0.1554	0.1336
OCF	(0.25, 0.2857, 0.3333)	(1.25, 1.2857, 1.3333)	(0.5625, 0.605, 0.64)	(0.1052, 0.1205, 0.1376)	0.1208	0.1039
H	(0, 0, 0)	(1, 1, 1)	(0.5625, 0.605, 0.64)	(0.1052, 0.1205, 0.1376)	0.1208	0.1039
EXP	(0, 0, 0)	(1, 1, 1)	(0.5625, 0.605, 0.64)	(0.1052, 0.1205, 0.1376)	0.1208	0.1039
SCS	(0.25, 0.2857, 0.3333)	(1.25, 1.2857, 1.3333)	(0.4219, 0.4706, 0.512)	(0.0789, 0.0938, 0.1101)	0.094	0.0808
PCA	(0.2857, 0.3333, 0.4)	(1.2857, 1.3333, 1.4)	(0.3014, 0.353, 0.3982)	(0.0564, 0.0703, 0.0856)	0.0705	0.0606
OC	(0, 0, 0)	(1, 1, 1)	(0.3014, 0.353, 0.3982)	(0.0564, 0.0703, 0.0856)	0.0705	0.0606
OD	(0.25, 0.2857, 0.3333)	(1.25, 1.2857, 1.3333)	(0.2261, 0.2746, 0.3186)	(0.0423, 0.0547, 0.0685)	0.0549	0.0472

**Table 9.** Combined weights of criteria

Criteria	Combined Weights
PCA	0.1739
CATR	0.1248
EXP	0.1152
AT	0.1148
H	0.0863
OD	0.0819
OCF	0.0764
OC	0.0762
SCS	0.0761
SPP	0.0744

The criteria are ranked based on their combined weights in the following order: PCA (0.1739), CATR (0.1248), EXP (0.1152), AT (0.1148), H (0.0863), OD (0.0819), OCF (0.0764), OC (0.0762), SCS (0.0761) and SPP (0.0744). PCA emerged as the most significant criterion when assessed with combined weights, whilst the SPP criterion was determined to be the least significant.

## 5 Discussion

One of the fundamental objectives of human resources management is to determine job analysis, job description, and job requirements. Through job analysis, the characteristics, requirements, and responsibilities of the job are identified, and the job description is created. In line with the job description, the workforce with characteristics suitable for the job requirements is determined. When the job's characteristics match the workforce's, employee performance, task fulfillment, teamwork, openness to development, compliance with organizational culture, and organizational commitment can increase.

Analysis of data obtained from managers in call centers, healthcare, banking, public economic enterprises, and manufacturing organizations shows that the most important criterion in personnel selection is "position and competency alignment." According to these results, it is crucial to have the right workforce in the right place at the right time. When there is a match between the job requirements and the employees' qualifications, employees can perform their duties better, and organizations can achieve their goals more quickly. If the wrong workforce that does not possess the required qualifications is preferred, this can result in numerous costs for organizations. Inefficiencies,

low performance, increased employee turnover, time loss, disruptions in the production process, and increased error rates are among the main costs.

The incorrect use of the workforce also brings many problems for employees. If the job requirements and the qualifications of the employees do not match, employees will not have the opportunity to use their various skills. Not using the skills that employees possess or having fewer skills than the job requires can negatively affect their motivation, job satisfaction, and performance.

The second criterion that relevant managers consider most important is “completing assigned tasks thoroughly and not interfering with others’ responsibilities”. In order for employees to perform their assigned tasks effectively and efficiently, it must be clearly stated what tasks they will perform, to whom they will be accountable, and what their authority and responsibility areas are. Employees must act within the specified limits. When these specified boundaries are crossed or when others’ areas of responsibility are interfered with, chaos and conflicts become inevitable. Chaos within organizations and conflicts among employees can lead to decreased productivity, loss of labor, deviation from organizational goals, or sabotage. Therefore, the criterion of “completing assigned tasks thoroughly and not interfering with others’ responsibilities” may be considered the second most important criterion.

Some managers (Manager-6) also considered “adaptation to teamwork” to be the most important criterion. Today, organizations emphasize teamwork to gain a competitive advantage and quickly adapt to environmental changes. Harmony among team members and their high ability to work together are crucial for businesses to quickly adapt to their environment, respond promptly to customer demands, and achieve organizational goals. Employees who do not act in accordance with team performance and are not harmonious with their teammates can negatively impact organizations.

Another criterion that managers (Manager-2) value is “honesty”. Employees’ knowledge and approach towards service recipients are important in achieving organizational goals and managerial success. Employees’ dishonesty towards their managers, withholding information from them, or deliberately providing incomplete information can lead to managers making mistakes and organizations suffering damage. Furthermore, employees’ dishonesty towards service recipients can undermine trust and negatively affect the image of organizations.

Managers rated “strong communication skills and openness to feedback” and “solving problems promptly and effectively” as the least important criteria. Managers may have thought that strong communication skills and openness to feedback would not be necessary when there was a match between employee qualities and job requirements, and when employees did not interfere in each other’s areas. However, managers may have thought that when employees lack the necessary qualifications for their positions and cause conflict by interfering in others’ areas of responsibility, communication skills become meaningless; employees may become problem creators rather than problem solvers. All these situations may have led managers to view these criteria as less important.

## **6 Conclusions**

Based on data collected from managers of two companies operating in call centers, hospitals, banks, public economic enterprises, and organized industrial zones, it was found that the most important criterion in personnel selection is “position and competency alignment”. In addition, some managers considered honesty (Manager-2) and teamwork compatibility (Manager-6) to be the most important criteria in personnel selection. In contrast, “solving problems promptly and effectively” was identified as the least important criterion. However, there was no consensus among managers on the least important criterion. Organizational culture fit (Manager-1), experience (Manager-2 and 3), organizational commitment (Manager-5), and openness to development (Manager-6) were among the criteria considered least important by managers. This difference may be due to managers being selected from different sectors. This situation also constitutes a limitation of the study. As a result, managers prioritize the following in personnel selection: position and competency alignment, completing the given tasks accurately and not interfering with the responsibilities of others, experience, adaptation to teamwork, honesty, openness to development, organizational culture fit, organizational commitment, strong communication skills and openness to feedback, and solving problems quickly and effectively.

## **Author Contributions**

Conceptualization, N.K. and A.U.; methodology, A.U., S.H.Z.; validation, N.K., A.U. and A.O.B.; formal analysis, A.O.B.; investigation, N.K.; resources, N.K.; data curation, N.K.; writing—original draft preparation, N.K.; writing—review and editing, A.O.B., D.K.D, C.S; supervision, N.K. D.K.D; project administration, N.K., C.S. All authors have read and agreed to the published version of the manuscript.

## **Data Availability**

The data used to support the research findings are available from the corresponding author upon request.



## Conflicts of Interest

The authors declare no conflict of interest.

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