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Araştırma Makalesi/ Research Article

A PSYCHOMETRIC APPROACH TO PERSONEL SELECTION: LATENT PROFILE ANALYSIS OF PRISON OFFICER CANDIDATES

PSİKOMETRİK YAKLAŞIM İLE PERSONEL SEÇİM SİSTEMİNİN KURULMASI: İNFAZ VE KORUMA MEMURLARININ ÖRTÜK PROFİL ANALİZİ İLE BELİRLENMESİ

Elif Bengi ÜNSAL ÖZBERK[*], Eren Halil ÖZBERK[**]

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ABSTRACT: Choosing the right candidate for the job is a continuing concern within the public and private sectors. The personnel selection systems are one of the most important factors affecting the efficiency of organizations that has to be considered carefully, which aims to find the best candidate by matching qualifications and requirements of the job. Thus, psychometric assessments are used to employ the most skilled person among applicants. One of the most significant challenges of assessing candidates is the validity of the psychometric test used to assess candidate performances. Lack of evidence on scales and candidate population may mislead recruiters to hire unqualified individuals for the position. A considerable amount of literature has been published on using psychological scales for recruitment. However, much less is known about candidate's latent profiles. This study highlights the importance of validation of scale in recruitment and seeks to reveal the latent profiles of candidates. The latent profile analysis identified two profiles for Vocational Adjustment, Social Skills, and Self-Control. The study results indicate that advanced and low Vocational Adjustment profiles show no extreme difference in both respects except for the Time management scores. However, higher profiles outperformed on Stress, Emotional Sensitivity, and Emotional Adaptation for the Social Skills domain. Like previous findings, self-consciousness scores are the highest of all subtests among low component profiles for the Self-Control domain

Key Words: Latent Profile Analysis, Personel Selection, Prison Officer

ÖZ: Bu çalışmanın amacı, Adalet Bakanlığı'nda görev yapan infaz koruma ve memurlarının işe alımlarında kullanılacak bilgisayar destekli psikometrik yaklaşım ile bir değerlendirme sistemi kurulmasıdır. Kurulacak değerlendirme sisteminde iş tanımları doğrultusunda işin özelliklerine uygun aday nitelikleri ortaya koyularak bu nitelikleri ölçecek araçlar geliştirilip bilgisayarlı sisteme entegrasyonunun sağlanması hedeflenmiştir. Bu doğrultuda; infaz koruma ve memurluğunun özelliklerine uygun aday niteliklerini ölçecek test bataryası geliştirilerek, geçerlik ve güvenirlik çalışmaları yapılmış ve sisteme entegrasyonu sağlanmıştır. Test bataryası; 3 temel boyut 15 alt test 462 maddeden oluşan infaz koruma memuru adaylarının profil analizlerini ortaya koyacak biçimde ön uygulamaya

[*]Dr., Buckinghamshire New University, High Wycombe, Buckinghamshire, United Kingdom, elifbengiozberk@gmail.com , ORCID: 0000-0003-2136-30812
[**] Dr., National Foundation for Educational Research, Slough, Berkshire, United Kingdom, e.ozberk@nfer.ac.uk., ORCID: 0000-0003-3605-3983

hazırlanmıştır. 1016 kişi ile gerçekleştirilen ön uygulama ardından yapılan analizler sonrasında beklenilen alt ölçeklerde yer alıp almayan ya da başka faktörlerle binişik maddeler ölçekten çıkarıldıktan sonra ölçek 220 maddelik nihai halini almıştır. Bu uygulama verileri ile 220 maddelik ölçeğin, genel yapı ve uzmanlar tarafından adlandırılan boyutları ölçüp ölçmediğine ilişkin yapı geçerliği çalışması, doğrulayıcı faktör analizi ile yapılmış, temsil edilen modelin uyum indekslerinin uygun olduğu saptanmıştır. Test Bataryasının güvenilirliğine ilişkin Cronbach Alpha iç tutarlık katsayısı belirlenmiş, temel ve alt boyutlarda yer alan maddelerin birbiriyle tutarlı olduğu tespit edilmiştir. Bu çalışma ile amaçlandığı gibi, Adalet Bakanlığı'nda görev yapan infaz ve koruma memurlarının işe alımlarında kullanılacak bilgisayar destekli psikometrik yaklaşım ile bir değerlendirme sistemi kurulup; iş tanımları doğrultusunda işin özelliklerine uygun aday niteliklerinin sağlanıp sağlanmadığını belirlemede geçerli ve güvenilir ölçümler yapabilecek araçlar geliştirilip bilgisayarlı sisteme entegrasyonunun sağlanmıştır.

Anahtar Kelimeler: Örtük Profil Analizi, Personel Seçimi, İnfaz Koruma Memuru

1. INTRODUCTION

Proper functioning of personnel selection systems is one of the most important factors affecting the efficiency of organizations (Gratton et al., 1999; Mondy et al., 2002). The personnel selection process includes the determination of personnel who have the characteristics and skills most suitable for the qualifications required by the position to be employed and selecting the most suitable personnel by reducing the number of candidates applying for the job (Chatman, 1989).

In every stage of personnel selection, the primary criterion in the selection decision is that the candidate's qualifications are compatible with the requirements of the position to be employed. Regardless of the method used while choosing among the candidate group, the candidate who best achieves this compatibility should be employed (Heneman et al., 2003). Suppose the right personnel is not employed for the right job. In that case, the decrease in productivity, conflict, loss of workforce, or work accidents due to incompatibility between the work-person or among persons within the organization, and the need to re-employ personnel will increase the expenses (Abtahamson & Pickle, 1996). Together with selecting suitable personnel for the job, the time and effort spent for coordination and control decrease. The improvement of the working environment also increases the stability in the organization with an average workforce turnover. Besides, it prevents accidents that may occur due to behavioral disorders and inaptitude (Gomez-Mejia et al., 2007; Rynes & Gerhart, 1990; Schmidt et al., 1984).

In summary, the purpose of the personnel selection function is to find the best relationship between the skills and job requirements of the candidates who apply for the job by researching the personalities, the education they have received, their abilities, and the topics they are interested in, and to employ those who have the most appropriate skills among them (Cascio, 2019; Elfenbein & O'Reilly, 2007; Palmer & Winters, 1990). Selection stages of personnel are carried out to make the most

effective selection decision, and every stage in the selection process is based on predicting which personnel will be successful in case of their employment (DeCenzo & Robbins, 2007).

When business practices are examined, although the methods used in the selection process and the order of their practice vary, most businesses prefer to apply a selection process consisting of a combination of selection methods in the selection process (Byars & Rue, 2000). Organizing the personnel selection process in stages and examining the applicants' different qualifications at each stage, and investigating their compatibility for the job is an effective method for selecting the most suitable personnel for the job (Mondy et al., 2002). Although these stages do not contain a standard method for all organizations, businesses prefer to apply a selection process consisting of a combination of selection methods, and these applications generally consist of 9 stages (Byars & Rue, 2000; Mathis et al., 2016):

1) Preparation studies (Policy identification, job analysis, announcement)
2) Acceptance of applications
3) Pre-interview
4) Job tests
5) Interview
6) Candidate's background check
7) Health examination
8) Job offer

In the Ministry of Justice's recruitment process, the prison (or correction) officer, the personnel selection process already includes preparation studies (announcement), acceptance of applications, interview, the candidate's background check, health examination, and recruitment stages. During the recruitment process of the prison officers for the Ministry of Justice, the scores of the candidates in the public personnel selection examination are taken into consideration rather than the recruitment tests, and the statement of the document containing this score is requested during the application. After score ranking, it has proceeded with the interview phase. Recruitment tests in personnel selection can consist of written and applied exams that measure the candidate's qualification levels and professional competence. As well as personality, interest tests, ability tests to determine whether the requirements of the position to be employed and the qualifications of the candidate are compatible, it can also be evaluated with a comprehensive psychometric assessment that measures many qualities at the same time. It is recommended to use psychometric methods, which is a comprehensive approach that aims to reveal the qualifications of the individual suitable for the job, in order to find the best relation between the skills of the person applying for the job and the job requirements (McCormick & Ilgen, 1995).

Psychometric assessments in personnel selection are a systematic method that provides an environment and opportunity to ask questions that will give information about individuals' abilities, skills, performances, motives, attitudes, and defenses (Carless, 2009).

The primary purpose of psychological tests is to compare the individual's work-ability adaptation and determine the individual's behavioral characteristics and team by evaluating the individual's psychologically and physiologically. In addition to this purpose, it is among the aims of the system to make the selection process objective with a psychometric approach, to make an assessment that will ensure the balance of work and employee, and to find a personnel who can adapt to the future structure of the business (Carless, 2009; Mondy et al., 2002).

In summary, the psychometric assessment used in businesses is a method that enables decision-making by revealing individual differences, quantifying the results, and comparing differences. With this method, it is possible to select the more suitable personnel for the job by measuring the individual differences such as intelligence, creativity, personality, ability, and knowledge in personnel selection. There are several steps in establishing a psychometric selection system. When the studies in the field are examined, these steps could be listed as follows with a general framework (Cascio, 2019; Ghorpade, 1988):

1) Job analysis
a. Knowledge of job and workplace
b. Skills required for the job
c. Personal features and knowledge required for the job
2) Identification of Suitable Candidate Qualifications in line with the Job Specifications
a. Test batteries
b. Creation of evaluation profiles
3) Validity and reliability studies of tests

Job analysis is defined as the technical procedures performed to investigate the systematic activities of the work or to define the duties and responsibilities covered by a job (Daft, 2014). Job descriptions and determination of job requirements are the two main products of job analysis. Job description includes the fundamental mission of the job, which covers the conditions willing to be performed, the essential tools that the job requires, the supervision functions, experience, knowledge, skills, talents other traits (or competencies in short) (Ghorpade, 1988; Uhl-Bien et al., 2014). Psychometry and psychological tests are essential components in evaluating job qualifications and play a key role in selecting candidates (Mondy et al., 2002). These psychometric applications can be performed by the human resources department in the businesses, or if the necessary infrastructure is not available, assistance could be obtained from an organization that

provides services in this regard. Another important stage is to ensure the reliability, validity, and usefulness of the psychometric qualities that psychological tests need to carry to make accurate and precise measurements (AERA et al., 2014). These qualifications are also valid for the tests used in organizations to select personnel.

1.1. Aim of the study

The primary purpose of this study is to establish an evaluation system with a psychometric assessment approach to recruit prison officers working in the Ministry of Justice. In the evaluation system to be established, a model has been developed that would reveal candidate qualifications suitable for the job descriptions in line with the job specifications and tools to measure these qualifications and analyze the profiles of candidates in terms of qualifications. For that purpose, a newly developed Prison Officer Behavior Inventory (POBI) was tested for validity over prison officer candidates (POC). Later, POC's latent profiles were determined to understand better how they perform on vocational adjustment, self-control, and social skill specifications to be used in the recruitment of POC working in the Ministry of Justice.

1.2. Development of Instrument

Prison Officer Behavior Inventory (POBI) was developed based on three fundamental sources. The job analysis stage, which is the first step of the implementation of personnel selection with the psychometric approach, was completed in 2015, within the scope of the "Twinning Project for Improvement of Enforcement Services in Penitentiary Institutions," which presented the job descriptions and job requirements of a prison officer in detail. First of all, the expert team in the project examined these job descriptions and requirements. As each member of the team currently working in a penal institution, their adaptation to the process has been at the highest level. After the job descriptions were examined, in order to determine the knowledge, abilities, and personal characteristics required by the job in a 360-degree manner, the qualifications that should be found in a qualified prison officer were asked in an open-ended manner to the personnel working in penal institutions and convicts/detainees.

The second source for the development of POBI was to prepare open-ended questions to get stakeholders' opinions about which psychological factors play an essential role in their daily job routine. A comprehensive group has been identified as stakeholders, including 32 psychologists and social service experts, 22 prison governors/directors, eight administrative officers, 65 experienced prison officers working in penal and institutions, and 39 convicts and prisoners. A deductive content analysis was conducted to analyze both the open-ended questions and expert investigations on psychological behaviors. Three main psychological domains identified as vocational adjustment, self-control, and social skills, with 15 sub-

domains emerged. Table 1 shows the primary and sub-domain names, a description of each subdomain, along with an example item of POBI.

The third and last source for the development of POBI was the writing items for each domain to measure POC's latent abilities in practice. A total of 462 items were then written based closely on each construct. The considerable attention paid to simplicity and straightforwardness in the test item writing process keeps candidates' motivation up and overcomes low motivation. The next step was the item reduction stage that experts individually reviewed each item on several criteria: grammar, quality, and content. The review results considered, along with the exploratory factor analysis outcomes, poor-fitting, and inadequate items are identified and removed from the POBI.

Table 1: Theoretical infrastructure of the POBI

Variable	Example items	The context within which criteria will be applied	Number of Items	CR^{α}
Domain 1: Vocational Adjustment			75	.972
Psychological Capital	I feel frustrated in the face of difficulties	Ability to work as part of a team and provide support to other officers and deal with prisoners to achieve positive outcomes. Good judgment and intelligence, with the ability to react responsively when dealing with issues and problems (including conflict and critical incidences).	18	.910
Teamwork Strategies	It feels good to be a member of a team		20	.935
Problem Solving	I feel uneasy when I have to make a decision alone		14	.934
Crisis Management	I am emotionally ready for possible crises.		13	.795
Time Management	I prepare a list of things to do for each day.		10	.918
Domain 2: Social Skills			82	.963
Communication Strategies	I have difficulty expressing my thoughts	Appropriate ethical behavior when dealing with prisoners and maintaining professionalism and conduct. Act appropriately and be accountable for tasks when assigned to	27	.884
Adaptation to Diversity in Business Life	Working with people from minority groups bothers me		22	.902
Empathy	I do not care what other people feel		11	.807

Self-consciousness	I do not want to change the style I adopt	duties and/or complying with orders.	8	.748
Leadership	I can easily distinguish other people's mistakes		14	.868
Domain 3: Self-Control			63	.960
Coping with Stress	I meet with my friends when I am stressed	Well-developed interpersonal skills with the ability to engage with prisoners, staff, and management constructively, and to work with gender, social and cultural differences	8	.831
Emotion Regulation	I am confused about what I feel		17	.885
Emotional Sensitivity	The negativities I experience are things that do not happen to many people		9	.812
Anger Management	When I get angry, I damage items so as not to harm anyone else		16	.906
Emotional Adaptation	When I feel bad, I have the feeling that I am weak		13	.813

2. METHODS

2.1. Participants

POBI aimed to select a selection system with a psychometric approach was carried out with "The Project of Strengthening Personnel Election and Promotion System (PESİP)," within the scope of increasing the human resources capacity of the Ministry of Justice General Directorate of Prisons and Detention Houses. In the process of carrying out the steps in Figure 1, under the leadership and the academic consultancy of the researchers, a large team of 18 people, all leading experts, working under the General Directorate of Prisons and Detention Houses, including one expert social worker, four clinical psychologists, one expert psychological consultant, six psychologists 1 Turkish teacher graduate, one statistics graduate prison officer, two software expert computer operators, took part.

Sample 1, which consists of the first version of the test battery with 462 items applied to 1016 candidates, was only used for exploratory factor analysis (EFA). Sample 2, which is the final version of the POBI with 220 items applied to 672 candidates, was only used for confirmatory factor analysis (CFA). The summary statistics for both samples are shown in Table 2.

Table 2: Descriptive statistic by gender

Variable	EFA		CFA & LPA	
	Male	**Female**	**Male**	**Female**
Age				
< 25 years	223 (%25.9)	47 (%30.3)	132 (%24.7)	29 (%24.6)
26 – 30 years	343 (%39.8)	70 (%45.2)	194 (%36.3)	57 (%48.3)
31 – 35 years	257 (%29.8)	31 (%20)	193 (%36.1)	30 (%25.4)
> 36 years	38 (%4.4)	7 (%4.5)	16 (%3)	2 (%1.7)
Period of Unemployment				
0 – 3 months	405 (%47)	59 (%38.1)	260 (%48,6)	50 (%42,4)
4 – 6 months	98 (%11.4)	11 (%7.1)	47 (%8,8)	8 (%6,8)
7 – 12 months	130 (%15.1)	32 (%20.6)	83 (%15,5)	21 (%17,8)
12 – 24 months	129 (%15)	19 (%12.3)	85 (%15,9)	17 (%14,4)
> 25 months	99 (%11.5)	34 (%21.9)	60 (%11,2)	22 (%18,6)
Educational Background				
Secondary Education	329 (%38,2)	26 (%16,8)	205 (%38.3)	16 (%13.6)
Associate Degree	193 (%22,4)	58 (%37,4)	130 (%24.3)	50 (%42.4)
Bachelor's degree	312 (%36,2)	65 (%41,9)	190 (%35.5)	50 (%42.4)
Master's/Doctorate degree	27 (%3,1)	6 (%3,9)	10 (%1.9)	2 (%1.7)
Total	**861 (%84.7)**	**155 (%15.3)**	**535 (%81.9)**	**118 (%81.1)**

2.2. Instruments

The final version of the POBI was evaluated after factor analyses were performed. The first phase for factor analysis is to perform EFA for the POBI. An EFA with a principal axis factoring and varimax (oblique) rotation was performed on 1016 candidates for Likert-type scales. Each subtest was examined for a factor solution of one dimension. Besides, each of the three domains was also examined for a five-factor model consisting of related subtests. Table 1 shows the results of explained variance and factor loading estimations of each subtest. For the next phase, CFA was performed to confirm the factorial structure derived from EFA. The initial step for CFA was to determine if the model resulted in a good fit for data. LISREL (Jöreskog & Sörbom, 2000) was used to perform the CFA on 672 candidates. Model chi-square, Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), and the root mean square error of approximation (RMSEA) were used to evaluate model fit. Values of 0.08 or close to zero represent a good model fit.

As shown in Table 3, The Vocational Adjustment, Social Skills, and Self-Control domains resulted in a good fit for the five-factor model. The CFI, NNFI and

RMSEA values were estimated .96 to.98, .96 to.98 and .057 to .077 respectively (Kline, 2016).

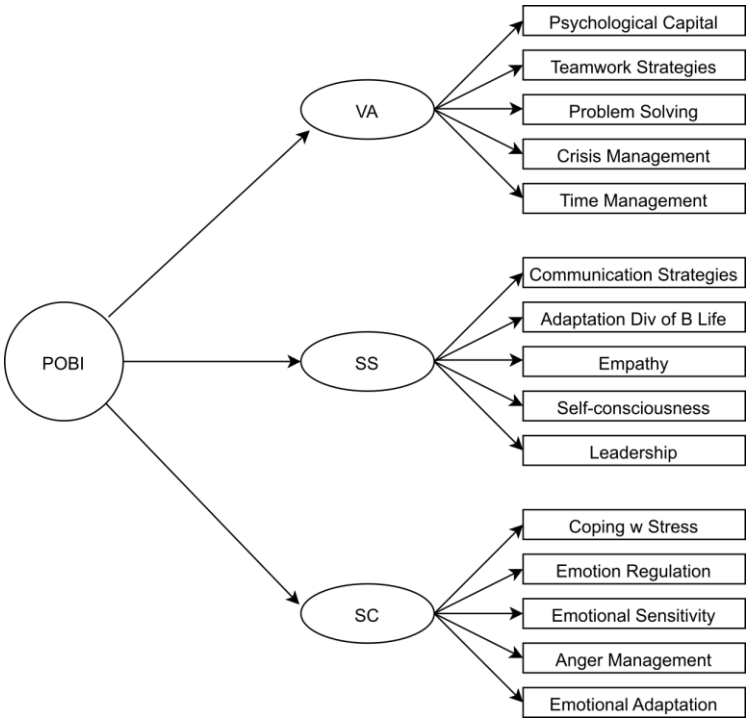

Fig.1. Latent structure of POBI

Table 3: EFA and CFA results for subtests and domains

Variable	EFA		CFA				
	Exp. Variance	Factor Loadings	x^2	sd	CFI	NNFI	RMSEA
Vocational Adjustment			**7113.1**	**2695**	**0.98**	**0.98**	**0.057**
Psychological Capital	59.295	.77-.51	543.1	132	0.97	0.97	0.069
Teamwork Strategies	51.757	.79-.42	699.5	170	0.98	0.98	0.069
Problem Solving	54.307	.77-.53	343.8	75	0.98	0.98	0.074
Crisis Management	47.871	.79-.53	194.9	64	0.98	0.97	0.056
Time Management	52.245	.83-.53	167.31	35	0.99	0.98	0.076
Social Skills			**9725.9**	**3234**	**0.96**	**0.96**	**0.077**
Communication Strategies	49.754	.79-.52	921.1	318	0.96	0.96	0.054
Adaptation to Diversity in Business Life	49.684	.68-.46	993.6	202	0.96	0.96	0.078

Empathy	45.765	.72-.50	182.2	44	0.97	0.96	0.069
Self-consciousness	39.061	.72-.47	46.6	20	0.98	0.98	0.045
Leadership	44.540	.81-.54	329.9	77	0.97	0.96	0.071
Self-Control			**5322.1**	**1885**	**0.97**	**0.97**	**0.059**
Coping with Stress	59.402	.78-.56	90.7	20	0.98	0.97	0.074
Emotion Regulation	61.685	.83-.43	447.4	116	0.98	0.98	0.066
Emotional Sensitivity	63.056	.79-.59	70.7	26	0.98	0.98	0.051
Anger Management	51.428	.77-.49	471.2	103	0.96	0.96	0.074
Emotional Adaptation	37.867	.73-.42	171.2	65	0.97	0.97	0.050

Based on EFA and first-order CFA findings, it was hypothesized that the underlying structure of the POBI was tested using a second-order factor that was conducted to validate the multidimensional construct of the POBI using three first-order factors VA, SS, and SC. Figure 1 shows the first and second-order structures of the POBI. Second-order CFA was used to test the model shown in Figure 1.

The results of second-order CFA generated an RMSEA value of 0.068, which indicates a good fit. CFI and NNFI were estimated at 0,94 and 0.95, respectively. The results suggest that three factors made a significant contribution to the overall construct of the POBI.

2.3. Statistical Analysis

In this study, LPA was used to determine the profiles of participants. LPA, which is a mixed-method used to determine non-observable subgroups and profiles, aims to identify response patterns in different profiles (Olivera-Aguilar et al., 2017). Also, LPA can be defined as an empirically derived, person-centered approach that focuses on relationships between individuals to divide them into groups similar to each other and different from other groups. It identifies the minimum number of hidden groups needed to account for the distribution of individuals across profiles. The number of groups that best fit the data is determined statistically rather than subjectively. (McCutcheon, 2013). Bayesian Information Criteria-BIC (Schwarz, 1978), Akaike Information Criteria-AIC, the bootstrap likelihood ratio test-BLRT (MacLachlan & Peel, 2000; McCutcheon, 2013), and entropy (Nylund et al., 2007) were used to determine the optimal number of profiles. According to Akogul & Erisoglu (2017), latent profiles are determined by considering the lowest BIC values. The LPA was conducted in R using the" tidyLPA" package (Rosenberg et al., 2019).

2.4 Ethics

The study was approved by the Ethics Committee of the Trakya University (E-29563864-050.04.04-7286) and had authorization from the Ministry of Justice, General Directorate of Prisons and Detention Houses.

3. FINDINGS

The results are summarized respectively under examining model indexes, examining parameter estimates, and extraction and interpretation of implicit latent profiles.

The first step in LPA is to determine the number of latent profiles. Table 4 summarizes the model fit statistics for possible profile structures. Latent profile models also can be specified in terms of how the variances and covariance are estimated. In this study, variables with varying variances and varying covariances were used for profile estimations. In Table 5, BLRT is examined for model fit, which provides a p-value that can compare the increase in model fit between the k-1 and k class model (Nylund et al., 2007). The LPA results suggested that BIC indicated a two-profile model for each of the three domains should be adopted with the lowest entropy value. Although four-profile models had the lowest AIC and SBIC values, a two-profile solution was preferred considering BIC, entropy, and theoretical infrastructure.

Table 4: Model fit indexes of latent profile analysis

Number of Latent Classes	AIC	BIC	sBIC	BLRT	BLRT_p	Entropy
Vocational Adjustment						
1-Class	25113.4	25203.1	25139.6	-	-	1.000
2-Class	24617.3	24801.1*	24670.9	538.1	0.010	0.775
3-Class	24569.4	24847.3	24650.4	89.9	0.010	0.846
4-Class	24497.1	24869.1	24605.5	114.3	0.010	0.864
Social Skills						
1-Class	25535.8	25625.4	25561.9	-	-	1.000
2-Class	25019.2	25202.9*	25072.7	558.6	0.010	0.722
3-Class	24953.2	25231.1	25034.2	108.1	0.010	0.759
4-Class	24864.8	25236.8	24973.3	130.3	0.010	0.776
Self-Control						
1-Class	26010.4	26100.1	26036.5	-	-	1.000
2-Class	25831.2	26015.1*	25884.8	221.2	0.010	0.621
3-Class	25790.9	26068.8	25871.9	82.2	0.010	0.622
4-Class	25813.6	26185.6	25922.1	19.2	0.723	0.673

Note. AIC=Akaike Information Criterion; BIC = Bayesian Information Criterion; SABIC = sample size-adjusted BIC; BLRT = Bootstrap likelihood ratio test. The LPAs did not converge when class number >4, so further estimates are not included here.

Class sizes and class assignment probabilities for the two-profile model for VA, SS, and SC domains are shown in Table 5. Geiser et al. (2006) stated that the mean of class assignment probabilities for all individuals within the same profile could be interpreted as reliability measures of classification. It can be seen from

Table 6 that means class assignment probabilities for VA, SS, and SC are above .96, which indicates all profile models have high classification reliabilities. Table 6 also summarizes the class sizes of each domain concerning the two-profile solution. For the VA domain, the class size measures indicate while Class-1represents %31.8, Class-2 members represent %68.1of all participants. The percentages were similar for SS that Class-1 and Class-2 share %25.6 and %74.4 for all participants. Unlike VA and SC, Class-1 size greater than Class-2. This result can be explained by the SC domain content that has subtests requiring lower scores for granted. Individuals are expected to score low in order to be considered successful in the specified tests.

Table 5: Class sizes and class assignment probabilities for the two-profile solution

Model	Class size (%)	Class assignment probability
Vocational Adjustment		
Class 1	31.8	.969
Class 2	68.1	.981
Social Skills		
Class 1	25.6	.978
Class 2	74.4	.987
Self-Control		
Class 1	60.5	.963
Class 2	39.5	.961

The last step in LPA is to empirically define the latent profiles using the theoretical framework of each domain. This section presented findings in graphics that reflect the selected profile solution according to the BIC index with varying variance and covariance models. The illustrations consist of two separate boxes for each subtest, representing class-1 and class-2 for the two distinct latent profiles. Y-axis shows the centered mean of subtest Z scores. Profile definitions were discussed analytically for each subtest ability.

A two-profile solution for the VA domain was shown in Figure 2. Advanced and Low profiles for VA characterized by the highest and lowest scores on Psychological Capital, Teamwork Strategies, Problem Solving, Crisis Management, and Time Management, respectively. Advanced and Low patterns show no extreme difference in both respects except for the Time management scores. Time management scores are estimated as highest, indicating that time management scores should be carefully considered while making decisions about candidates.

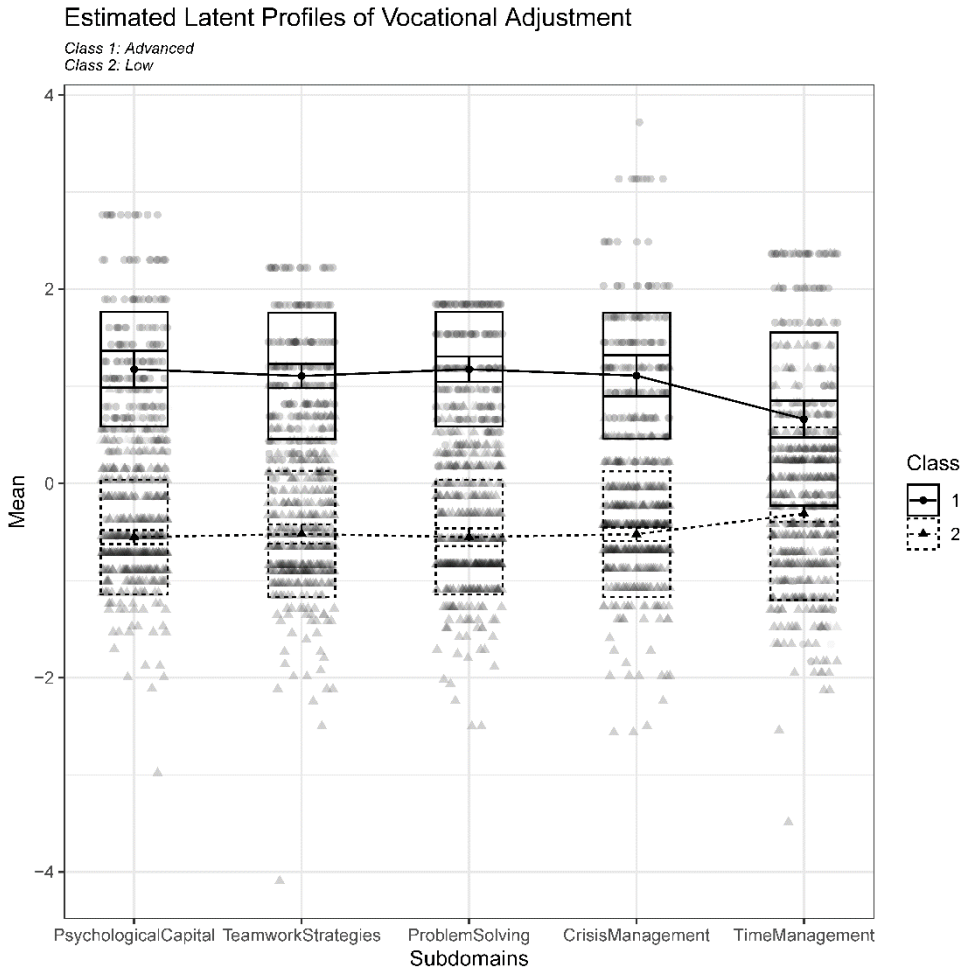

Fig.2. Two-profile solution of the VA

A two-profile solution for the SS domain was shown in Figure 3. High and Low Competent profiles for SS characterized by the highest and lowest scores on Social Skills, Communication Strategies, Adaptation to Diversity in Business Life Empathy, Self-consciousness, and Leadership, respectively. High and Low Competent patterns show similar patterns in both respects. However, high component profiles performed slightly low on Self-consciousness. Contrary to the high component, Self-consciousness scores are the highest of all subtests among low component profiles.

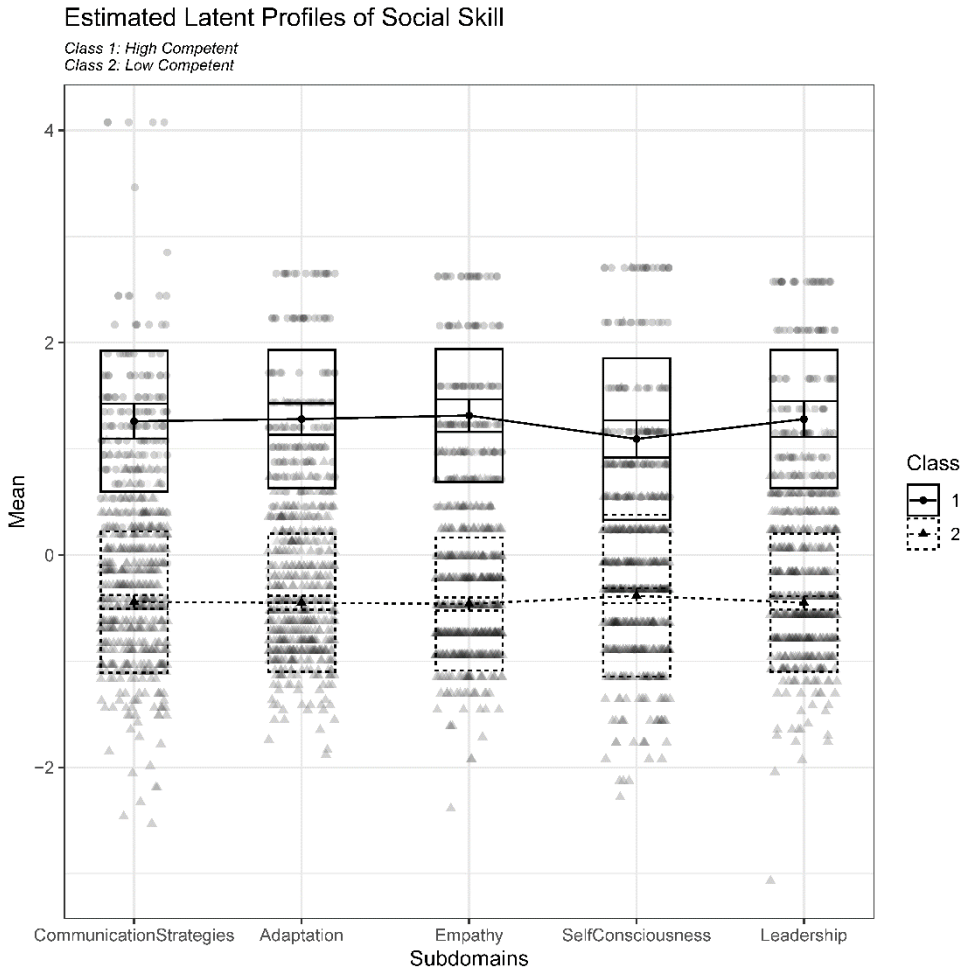

Fig.3. Two-profile solution of the SS

The last two-profile solution for the SC domain was shown in Figure 4. Contrary to the other profile interpretations used in VA and the SS, High and Low profiles for SC are characterized by the lowest and highest scores on Coping with Stress, Emotion Regulation, Emotional Sensitivity, Anger Management, and Emotional Adaptation respectively. High and Low Competent patterns show similar patterns in both respects. However, higher profiles outperformed on Stress, Emotional Sensitivity, and Emotional Adaptation. Therefore, the result for the high profile candidates needs to be interpreted with caution when designing recruitment strategies.

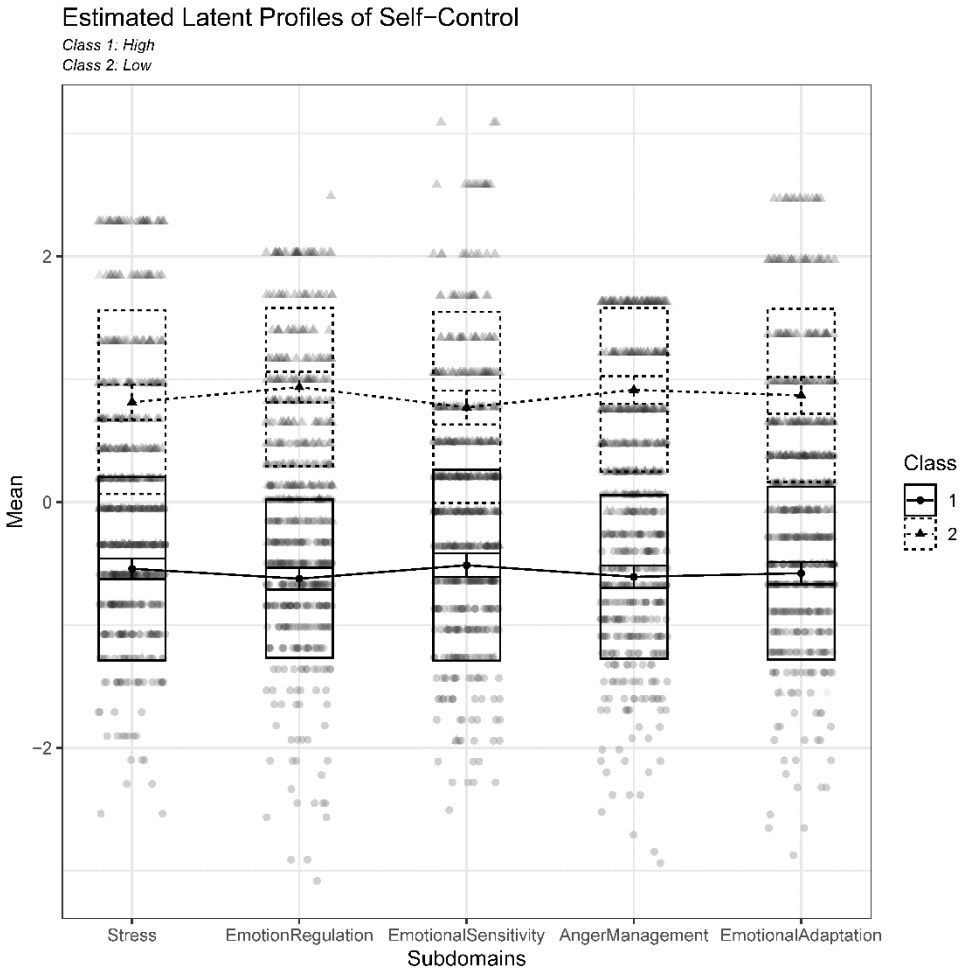

Fig.4. Two-profile solution of the SC

4. DISCUSSION

Tests are frequently carried out to determine individuals' cognitive and general mental abilities in job application and recruitment (Schmidt, 2002). It is aimed to predict the competence of the individuals in the business environment and select the candidate with the highest competence using tests. It has been determined by many researchers that psychological tests developed with a psychometric assessment increase the accuracy of the decision made about the candidate in the personnel selection process. Besides, it has been observed that personality traits and job performance interact, personality traits predict job performance; therefore, work performance increases in enterprises where tests developed with psychometric

assessment are applied, and appropriate personnel is selected (Carless, 2009; Gomez-Mejia et al., 2007; Heneman et al., 2003). According to the job description, prison officers are expected to have many psychological features. Therefore, prison officers can carry out their duties in a healthier manner and communicate well with them. The psychological characteristics of the prison officer have been studied over the years. However, very few studies have been incorporated to identify the latent profiles of the prison officer candidates.

This study outlines a summary of VA, SS, and SC behaviors of the prison officer candidates, by investigating the patterns on each subtest. For this purpose, the POBI, which consists of 3 dimensions and 15 subtests, was developed using scale development procedures. First, EFA was conducted on 1016 people to determine latent factors. As a result of the EFA, 242 items were excluded from the scale, and later procedures proceeded with 220 items. CFA was conducted to test the validity of the pre-determined factor structures. As the model fit of the initial CFA model created sufficient results for the POBI.

The high-profile classification sizes were 31.8% for the VA and 25.6% for the SS. This case has shown that VA contains more high profiles than SS on higher profiles. Based on this finding, it was determined that high profile candidates are less likely to have SS characteristics like empathy and leadership than VA characteristics, such as problem-solving and crisis management. In a similar result, SC skills, the percentage of a high profile is 39.5%. The SC demonstrates that high profile candidates are likely to have characteristics such as coping with stress and anger management, which are essential while communicating with/after prisoners.

Regarding personnel recruitment, latent profile estimations should help determine the psychological profiles of candidates in the recruitment process. Therefore, results create an illustration for the skill of candidate percentages that enables recruiters not to recruit low profile candidates.

Latent profile analysis is a person-based approach and allows to reveal the latent characteristics of a group. With this study, the profiles of the guards were tried to be determined on psychological traits. The use of LPA in profile determination studies has enabled the profiles to be obtained more accurately.

The major limitation of this study is using the specific psychological characteristics that experts determined. Considerably more work will need to be done to determine the latent profile of prison officers using various psychological attributes. More research using LPA is required to estimate profiles for different business areas. A further study could assess cross-cultural comparison of the latent profile of prison officer candidates.

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