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**UNCONVENTIONAL METHODS FOR SELECTING HUMAN
RESOURCES- POLYGRAPH AND HONESTY (INTEGRITY)
TESTS**

Abstract

A polygraph (a lie detector) and honesty (integrity) tests are unconventional methods for selecting human resources in companies. They are used for testing employees' honesty and integrity by detecting the veracity of their answers, as well as for detecting people who are predisposed to immoral behavior. Since the companies have confronted with loss and waste made by the employers with immoral behavior, they are using more and more honesty and integrity tests to detect the employers who act immorally and irresponsibly. Some of the companies don't have trust in the traditional standardized tests for selecting human resources and therefore they've decided for using unconventional methods for selecting human resources. The polygraph has been still used in America besides it has restricted use by law. Nowadays, the honesty (integrity) tests have been used intensively because of the criticism of the polygraph and its restricted use.

Key words: polygraph, honesty (integrity) tests, immoral behavior

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Introduction

Testing people' honesty and integrity is done with polygraph (lie detector) and written tests in order to assess whether candidates behave immorally. The polygraph is a lie detector and it verifies the truthfulness of candidates' statements. The polygraph tests are used as a selective method to test the truthfulness of applicant's statements and for a choice of new employees in the government, banks, treasury, jewelry's and workplaces which are attractive to potential robbery.

The polygraph is used also for detection of spies. The losses, which are made from dishonest and immoral behavior of the staff, are measured with millions, even billions dollars. The polygraph tests are used in American companies even though they are restricted by law. The disadvantages and criticisms of polygraph resulted in popularization of honesty (integrity) tests. Tests consist of questions that need to be answered with yes or no. Integrity tests are valid as a method for identifying person's characteristics, but there isn't enough predictive validity whether a person will steal, abuse their confidence, disclose official secrets etc. In the last years significant efforts are being made to increase the predictive validity of honesty tests and the experiences of their implementation are very positive, so the arguments against their use are opened to question. The employers use integrity tests as mechanisms to hinder the employment of unethical persons, to reduce fraud and theft in the workplace, as well as to raise staff' awareness that dishonesty will not be tolerated.

Polygraph

The theory of polygraph is: "If a person doesn't answer the question correctly, his physiological changes in his body will detect deception during a part of the polygraph examination". (Alder, K. 2002:11-33)¹

¹ Mathis, R. L., Jackson, J. H. (2008), "Human resource management", 12 ed., Thomson South -Western translated by Џонс, М., Димитриевски, В. Д., Матис, Р. Л., Џексон, Џ. Х. (2010)," Управување со човечки ресурси", 12изд., Скопје: МАГОР, с.240.

The Methods used to conduct polygraph tests were made, examined and validated in the USA and were used for many years.²

George Bolander and Scot Schnell described the polygraph. The instrument consists of the rubber sleeve, a pressure reducing device, Marey's tambour, a light glass lever and stylus, a roll of smooth paper and a kymograph or a motor driven drum for winding up the paper. The instrument is so designed that it is peculiarly sensitive to small changes in blood pressure.³ The polygraph is a lie detector and it verifies the truthfulness of candidates statements. The polygraph tests are used as a selective method to test the truthfulness of applicant's statements and for a choice of new employees in the government, banks, treasury, jewelry's and workplaces which are attractive to potential robbery.⁴ The polygraph (lie detector) is used to measure and record physiological changes in candidate's body such as blood pressure/volume, heart rate and certain resistance changes.

The polygraph was invented in 1921 by John Augustus Larson, a medical student at the University of California at Berkeley and a police officer of the Berkeley Police Department in Berkeley, California. In some countries polygraphs are used as an examination of criminal suspects or candidates for sensitive public or private sector employment, US law enforcement and federal government agencies such as the FBI and the CIA.

The examiner typically begins polygraph test sessions with a pre-test interview to gain some preliminary information which will later be used to develop diagnostic questions. Then the tester will explain to the candidate how the polygraph is supposed to work, emphasizing that it can detect lies and that it is important to answer truthfully. Some of the questions asked are "irrelevant" or IR ("*Is your name Fred?*"), others are "diagnostic" questions, and the remainder are the "relevant questions. Criticisms have been given regarding the validity.

The National Academy of Sciences (NAS) in the USA found that the majority of polygraph researches were unreliable, unscientific and

² Euro Poligraf Center, "The advantages of polygraph testing", Bucuresti: Singular Labarator de expertiza poligraf (detector de minciuni) autorizat cu sistem de control al rezultatelor, 2012

<http://www.poligraf-center.ro/index.php?page=105&lang=EN>, < Experti certificati***tarife avantajoase***Programari...> (10.01.2014), p.1.

³ Боландер, Ц., Шнел, С.(2010), "Управување со човечки ресурси", 15, USA: South-Western, Cengage Learning, c.267.

⁴ MBA Knowledge Base, "Type of tests taken in the Selection process", <Type of tests taken in the Selection process> (08.01.2014).

biased, based on the 57 research studies of polygraph examination. In Canada, the polygraph is regularly used as a forensic tool in the investigation of criminal acts and sometimes in the screening of employees for government organizations. Despite legal restrictions the polygraph testing is used in the United States in front of juries under certain circumstances. In many other states, polygraph examiners are permitted to testify in front of judges in various types of hearings. By August 2013 the U.S. federal government had begun indicting individuals who stated that they were teaching methods on how to defeat a polygraph test. The polygraph is used for detection of spies, but it failed to detect them. There are numerous cases where spies successfully passed polygraph examination.

Recent research indicates that Functional Magnetic Resonance Imaging (fMRI) may benefit in explaining which parts of the brain are active when subjects use artificial memories. Most brain activity occurs in both sides of the prefrontal cortex, which is linked to response inhibition⁵

The United States Employee Polygraph Protection Act of 1988 prohibited the use of the polygraph, either for pre-employment screening or during the course of employment. But some federal state and local institutions as well as some part of the private sector (security companies, pharmaceuticals companies) are allowed to use polygraph tests to every single person who's considered for a job.⁶ The polygraph testing can be used by National Security and Defense, companies which have access to confidential information, certain strategic industries such as nuclear power, Ministry of Justice or FBI. Private companies are also allowed to use it in the following cases: to recruit candidates for security jobs, people who have access to narcotics or people who examine narcotics, because they can cause economic damage.⁷ If the employer wants to use polygraph tests to his employees, he is supposed to give adequate reasons for doing that for ex. a lot of economic losses, interrogating suspects etc.⁸

⁵ "Polygraph", Wikipedia, the free Encyclopedia,

<http://en.wikipedia.org/wiki/Polygraph>, (10.01.2014), p.1-9.

⁶ Dressler, G. (2005), "Human Resource Management", 10ed., 2 Part, 6 Chapt., Recruitment and Placement, Prentice Hall Inc., cited by Cook, C. "Employee Testing and Selection" the University of West Alabama, PowerPoint Presentation <[PPT]Employee Testing and Selection> (10.01.2014), s.42.

⁷ Dessler, G.(2003), "Human Resource Management", 9 ed., New Jersey: by Pearson Education, Inc., Prentice Hall, Upper Saddle River 07458, p.199.

⁸ Dessler, G. (2008), "Human Resource Management", 11 ed., New Jersey: Upper Saddle River Pearson Prentice Hall, p.236.

Mark Cook and Barry Cripps say that there is little basis for the validity of polygraph tests. They state particular problems:

- High rate of people called “*the false positive*” seem to hide something, but they may be nervous when answering truthfully.
- The criminals and psychopaths, who don’t consider lies in the same way as the other people, can deceive the polygraph by reacting differently to lying.
- The spies can easily hide their physiological reactions and can easily deceive the polygraph instrument. (Cook, M., Cripps, B., 2005:251)⁹

The polygraph tests are currently used in criminal investigations. A lot of damages and losses have been made by stealing, deceit, malversation, espionage, betrayal of confidential information, money laundering etc. There are some reasons why the polygraph is used as a selective method in companies:

- The necessity to eliminate or minimize the factors that cause disastrous consequences of theft, malversation, betrayal of confidential information, money laundering etc.
- Making efforts to find honest, responsible and confidential candidates for sensitive workplaces
- The necessities of honest staff in banks and financial institutions, as well as companies that work with money, securities, valuable items etc.
- Companies are forced to prevent themselves from these negative occurrences.

The losses, which are made from dishonest and immoral behavior of the staff, are measured with millions, even billions of dollars. In the middle of the 20th century the American companies lost 65 and 75 billions annually. The polygraph tests are used in American companies even though they are restricted by law and they are 98% used in private companies. (Cascio, F.W., 1995:204)

Psychologists, sociologists, humanists and non-governmental organizations took part in a campaign against polygraph tests. They thought

⁹ Cook, M. and Cripps, B. (2005), “Psychological Assessment in The Workplace: A Manager's Guide”, England: John Wiley & Sons, LTD, translated by Sočkovič, J i Barišič, M. (2009), “Psihološko procjenjivanje na radnome mjestu: Vodič za menadžere”, Zagreb, Školska knjiga, s.251.

that polygraph tests weren't reliable because they test emotional state and nervousness but not honesty and dishonesty.¹⁰

Honesty (integrity) tests

Testing people' honesty and integrity is done with polygraph (lie detector) and written tests in order to assess whether candidates behave immorally.¹¹ The disadvantages and criticisms of polygraph resulted in popularization of honesty (integrity) tests. There are different honesty (integrity) tests:

- for determining the candidates views on dishonest and inappropriate behavior
- for checking person's characteristics
- for determining candidates' views on work, working morale, work behavior and discipline etc.

There are as well as tests for checking persons views on disclosure of official secrets, professional ethics etc.

Testing should be done by competent persons. Tests consist of questions that need to be answered with yes or no.

Combinations of integrity tests and lie detector are used in some companies. If the results are equivalent from the both methods, it's a good predictor for selecting a moral person. If the results aren't equivalent the test is repeated or another tests are used by the companies for a choice of new employees. Integrity tests are valid as a method for identifying person's characteristics, but there isn't enough predictive validity whether a person will steal, abuse their confidence, disclose official secrets etc.

The following reasons are listed as arguments against their use:

- weak predictive validity
- from a moral and psychological view point testing isn't allowed without agreement of the examinee
- a person mustn't be characterized as a dishonest person or a person with morally unacceptable behavior, with predisposition for stealing or other manipulations with outvalid evidence and concrete deeds

¹⁰ Цветковић, Н., Тасић, З., Стаменковић, С., Кулић, С. (2013), "Неконвенционални методи селекције кандидата за посао", *Pravno – Ekonomski Pogledi*, br.1/2013, <Pravno-Ekonomski Pogledi br.1/2013 Nekonvencionalni...> (03.01.2014), s.4-8.

¹¹ <[PPT] Testiranje i selekcija kandidata za posao PowerPoint...> (03.01.2014).

- their use is against the Right to Work law, as one of the universal human rights. The candidates are eliminated in a questionable way, there by their human rights aren't realized.

In the last years significant efforts are being made to increase the predictive validity of honesty tests and the experiences of their implementation are very positive, so the arguments against their use are opened to question.¹²

Theft is one of the greatest evil, that a lot of companies face it and suffer huge losses. That is the reason of the demise of many small companies. That is the biggest reason for the companies to use this kind of test. These procedures are recommended for the screening of individuals as well as for preventing of theft:

- making direct insensitive questions
- more listening than talking
- verification whether the person uses credit
- review of the recommendations for employment and personal references
- test for detecting consumption of drug
- testing with integrity tests such as paper and pencil and psychological tests for detecting certain types of behavior of the person
- obtaining information from police whether the person has a criminal record¹³

It can be seen that the integrity tests are included in the above-mentioned procedures.

Jackson, S.E., Schuler, R.S., Werner, S. stated that the theft made by employees, is the main cause of 30% of the bankruptcy cases of companies. Inexplicable losses of cash, trade goods, tools and supplies are a major problem and the companies are forced to invest huge sum sin providing the system and greater control. Of the 9000 employees surveyed by the Ministry of Justice, 30% of them admitted that they steal from their employers. The

¹² Цветковић, Н., Тасић, З., Стаменковић, С., Кулић, С.(2013),“Неконвенционални методи селекције кандидата за посао“, *Pravno – Ekonomski Pogledi*, br.1/2013 <Pravno-Ekonomski Pogledi br.1/2013 Nekonvencionalni...> (03.01.2014), s.4-8.

¹³ Dressler, G. (2005),” *Human Resource Management*”, 10ed., 2 Part, 6 Chapt.,“Recruitment and Placement”, Prentice Hall Inc., cited by Cook, C. "Employee Testing and Selection" the University of West Alabama, Power Point Presentation <[PPT]Employee Testing and Selection> 10.01.2014 slide 6-45.

integrity problem can a company cost a lot. (Jackson, S.E., Schuler, R.S., Werner, S., 2009:247).¹⁴

The American professor James Wimbush thinks that most of the selective models for human resources did not give the expected results as a result of the limited knowledge of managers. The survey has shown that 57% of managers think that integrity tests have no validity. But recent research on American employees at the age of 18-22 years who had access to money, showed that 53% of them were stealing regularly from the company. According to the above-mentioned American professor the reasons are: poor salary, notice of dismissal, poor working conditions and employees do not consider stealing as a negative phenomenon. The professor thinks that the latest versions of honesty and integrity tests are considerably improved and they are worth to use in organizations.¹⁵

The below-mentioned questions are used in some of the integrity tests in order to check the candidates' attitudes in terms of theft and their previous experiences:

- *according to you is it okay to take something from the organization that has a high profit?*
- *according to you the theft is getting the part you deserve?*
- *Is it okay to manipulate with the prices of commodities when the store has too high-priced commodities for personal profit?*¹⁶

The employers use integrity tests as mechanisms to hinder the employment of unethical persons, to reduce fraud and theft in the workplace as well as to raise staff' awareness that dishonesty will not be tolerated. Sometimes the examiners consciously generate false positive answers because of restrictions of these tests. These tests can violate people's privacy and to be offensive in terms of the structure of the questions. They can generate false positive information too. Robert L. Mathis and John H. Jackson say that the results of a survey of US employers, showed that 28% of

¹⁴ Jackson, S. E., Schuler, R. S., Werner, S. (2009), "Managing Human Resources", 10ed., USA: South-Western, a part of Cengage Learning, p.247.

¹⁵ "Održano predavanje prof. James Wimbusha o modernim trendovima u razvoju ljudskih resursa", Nezavisni hrvatski sindikati, 16.01.2007
www.nhs.hr/novosti/održano_predavanje_prof_jamesa_wimbusha_o_modernim_trendovima_u_razvoju_ljudskih_resursa_4253/, (04.01.2014), s.1,2

¹⁶ Pavlovič, N. "Selekcija zaposlenih", <PPT- Selekcija zaposlenih PowerPoint Presentation> (03.01.2014).

employers use honesty and integrity tests. While 22% of them use the same tests to detect affinity for violence.¹⁷

Candidates, who apply for filling the vacancy in the administration, take the integrity test. The State Employment Agency prepares a ranking list of five candidates who take the integrity test.¹⁸

Integrity tests are used to determine whether a person has a tendency towards counterproductive behavior at work. The tests predict lying, poor performance, sabotage, theft as well as absence or leaving work. According to Suket the integrity tests (that evaluate person's characteristics) are undercover to the purpose of testing. Personality tests are often used as integrity tests. Hogan and Hogan constructed personality test which was applied as integrity test that identified the characteristics of a person connected with theft. It was shown that people with affinity to theft were exhibitionists and had less sense of guilt for their actions.¹⁹

Extensive researches have shown that some of these methods provide reliable information and predict dishonest behavior. The integrity tests are selective method for a choice of new employees for filling the working positions that included working with money.²⁰

Conclusion

In the last years we are witnesses to the media constant reports on various types of malversation of working positions, theft and manipulations. The companies' huge losses are due to dishonest behavior of their employees and they are considered to be the main reason for using the integrity tests as a selective method for a choice of new employees. Now the companies are not satisfied with the traditional methods for a choice of new employees, so they

¹⁷ Mathis, R. L., Jackson, J. H. (2008), "Human resource management", 12ed., Thomson South –Western translated by Цонс, М., Димитриевски, В. Д., Матис, Р. Л., Цексон, Ц. Х. (2010), "Управување со човечки ресурси", 12изд., Скопје: МАГОР, с.239.

¹⁸ Бошковска-Златкова, Н. "Администрацијата нервозна поради новите правила", Нова Македонија, бр.22323 среда 06.07.2011, www.novamakedonija.com.mk/NewsDetal.asp?vest=7611845101&id=9&setIzdanie=2323 (07.11.2014).

¹⁹ Николоски, Т. (2000), "Психологија на трудот", Скопје: Универзитет "Св. Кирил и Методиј", Филозофски факултет, с.148.

²⁰ Selection tests/HRM/Free Online Lessons, Lesson 19, www.zainbooks.com, Free IELTS Practice Test <Human Resource Management-ZainBooks.com> SELECTION TESTS:Characteristics of Properly Designed, (08.01.2014), p.3.

often use unusual resources looking for more skillful and more adequate employees. Even the polygraph has restricted use, it is used evidently by the companies in the USA. The findings about the advantages and disadvantages, and experiences in using the tests in the USA and other highly developed countries, are very useful. In our country the honesty (integrity) tests have been recently used to select staff who have been shortlisted for filling the vacancy in the administration. I think the tests will be used more intensively by the companies in the future and the testing will be in combination with other standard and conventional selective means for a choice of loyal and honest employees.

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