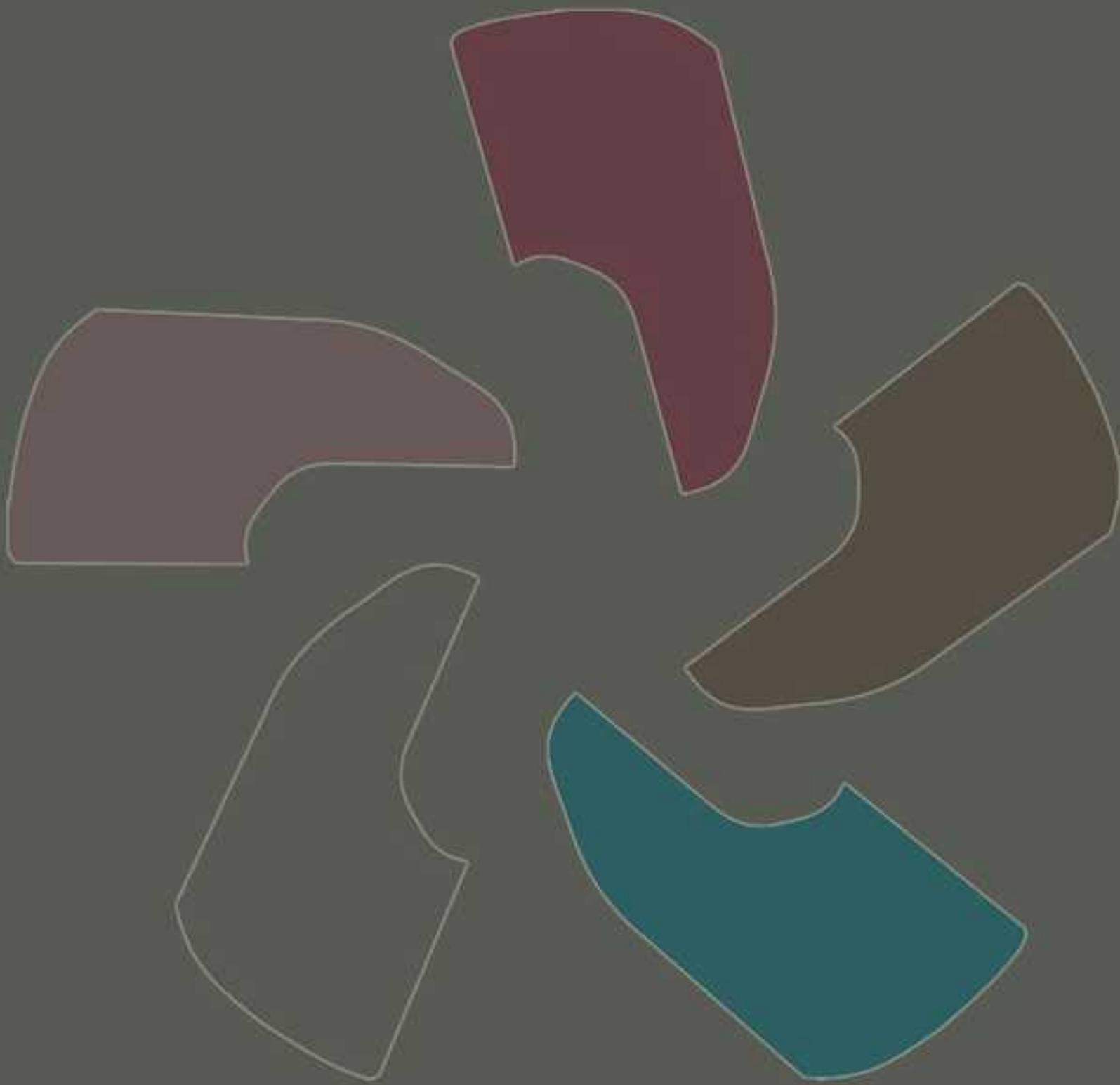




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SERVICE QUALITY MEASUREMENT MODEL IN URBAN PUBLIC TRANSPORTATION: THE CASE OF IETT

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Abstract:

IETT, which manages land public transportation of Istanbul, serves to the customers in a broad area. So, measurement and assessment of its services is vital for urban transportation and life quality in Istanbul. For such reasons, it is necessary to evaluate its performance, determine level of quality and find areas for improvement. For such purposes, Service Quality Measurement Model (SQMM) is established and implemented by IETT in 2012. SQMM defines service quality and its boundaries, and determines methods to measure service quality at every contact point with customers according to eight main categories, which are availability, accessibility, information, time, customer care, comfort, security, and environmental impact, of EN 13816 Standard. EN 13816 Standard is based on service quality loop and evaluation of services from customer and operator perspective. All contact points are inspected implicitly and explicitly according to EN 13816 Standard. Analytic Hierarchy Process (AHP) is applied to assign weights of main criteria in each contact point and weights of each contact point with respect to total score. In this study, scope, criteria and methodology of SQMM, audit mechanism produced as an outcome of the model, and gains are put forward in this study.

Keywords:

EN 13816, Service Quality, Service Quality Measurement Model, Public Transportation, Transportation

1. Introduction

Evaluation of service quality of public transportation is a recent approach, as publications in this topic have appeared in last fifteen years (Redman et al., 2013) Some governments strive to increase service quality of public transportation in order to make public transportation attractive (Paquette et al., 2012). Improvements in public transportation services affect customer satisfaction and individuals' life quality (Ettema et al., 2011). Performance measurement tools have become essentials for public transportation organizations, which aim to form strategic objectives in order to enhance their services continuously (Eboli and Mazzula, 2012).

Public transportation is one of the main issues of the metropolis. As development of cities is directly proportional to the development of public transportation systems, it is obvious that cities with developed public transportation systems are more advantageous than others. Furthermore, development of public transportation increases mobility of people living in that city. Increased mobility ensures that individuals can access the opportunities in a city more easily. Hereby, cities become more vivid both socially and economically. Another major problem of big cities is traffic congestion. Public transportation has crucial importance in preventing traffic congestion. Traffic congestion problem can be solved by an improved public transportation system and decreasing private car usage. Public transportation should become more attractive in order to decrease private car usage. Public transportation may become more attractive by increasing service quality. Ensuring service quality is related not only to the conformity to standards but also to meeting customer expectations. To measure expectations and compare them with realized service level, there is need for a model.

Measuring and evaluating İETT's public transportation services are crucial for transportation system and city life of Istanbul. So, Service Quality Measurement Model (SQMM) is by İETT to determine quality level, assess performance and discover improvement opportunities. İETT aimed to describe contact points with customers, define quality standards in these points, and measure, track and improve performance within the scope of SQMM.

2. Service Quality in Public Transportation

It is easier to describe quality for goods while production quality may be defined as suitability for required properties (Metters et al., 2003). On the other hand, it is hard to improve quality for services, since services are built notionally and they may have details, which are hard to be predicted (Parasuraman et al., 1985). Deciding whether a service quality is good or not, is related with ensuring customer satisfaction at contact points during services production processes (Fitzsimmons and Fitzsimmons, 2008).

Increasing population and car ownership, especially in metropolis, propose concerns about traffic congestion and pollution. Also, when public transportation is considered, the way public transportation affects the structure of society and lifestyles should not be overlooked. Because of such reasons, it is important to take further steps, which decrease private car ownership dependency and encourage public transportation usage. The most important and widely accepted management system is EN 13816 Standard, which defines service quality in public transportation.

2.1. EN 13816 Service Quality Standard in Public Transportation

EN 13816 Standard, constituted by European Committee for Standardization (CEN) in 2002, contains service quality standards in public transportation. EN 13816 Standard is a guide to determine public transport service quality level and defines eight main criteria in 3 levels. With this standard, public transportation services supplied by different organizations from different locations and conditions can be evaluated by the same criteria and the level of service quality is revealed (CEN, 2002).

The main purpose of EN 13816 Standard is to develop quality approaches towards to public transportation and to focus on customer need and expectations. This standard is guidance for definition of service quality in public transportation, setting aims, ensuring measurement and choosing appropriate measurement method (CEN, 2002).

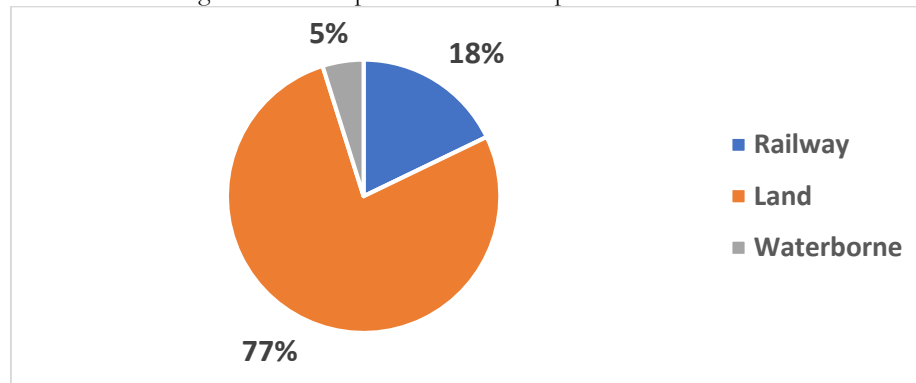
Public transportation service quality criteria reflect customers' service perception and gather in eight main criteria: availability, accessibility, information, time, customer care, comfort, security, and environmental impact. Availability and accessibility categories evaluate general frame of service quality; category of environmental impact defines environmental impacts to the society. Other categories define service quality elaborately (CEN, 2002). While supplied service has being evaluated, the following criteria should be considered (CEN, 2002):

- Customer (both implicit and explicit) expectations about service quality of public transportation should be identified.
- Political, financial, technical, legal and other constraints should be considered.
- Current service quality levels and potential improvement areas should be identified.
- Objectives should be determined while considering expectations, constraints, areas for potential improvement, existing performance and raw data should be translated into measurable criteria.
- Performance should be measured.
- Corrective actions should be taken.
- Customer perception should be evaluated to constitute a basis for action plans.
- Action plans should be arranged and implemented in order to decrease differences between sought & perceived quality and delivered & perceived quality.

3. IETT in Istanbul Public Transportation System

Urban public transportation in Istanbul, where more than 14,5 million people live, is carried out by land, railway and waterborne transportations (TUIK, 2016). Land transportation has the greatest share in modal split in Istanbul, followed by railway and waterborne transportation (Figure 1).

Figure 1 Modal Split of Public Transportation in Istanbul

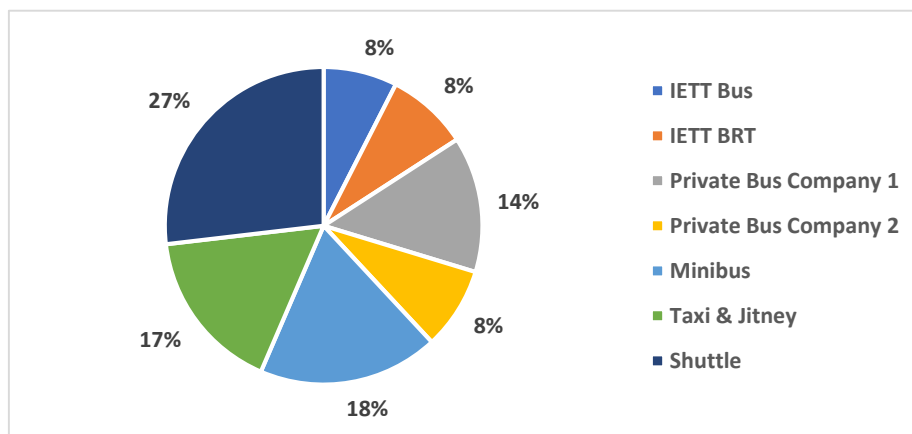


Source: IETT, 2016

General Directorate of Istanbul Electric, Tram and Tunnel Establishments (IETT) is a public body, which supplies public transportation services under the Istanbul Metropolitan Municipality. IETT serves its customers by buses, BRT, nostalgic tram and Tunnel. IETT carries 3.8 million passengers daily on 725 routes with its in-house 3 thousand buses and additional 3 thousand buses that are owned and operated by private operators and regulated by IETT (IETT, 2016).

IETT carries 8.34% of land public transportation in Istanbul by its BRT system and %7,51 by its regular buses. Also, private buses that are regulated and supervised by IETT, carries 22,21% of land public transportation. In all, IETT's share in land public transportation is 38% and its share in whole public transportation is 29,43% (IETT, 2016).

Figure 2 Modal Split of Land Public Transportation in Istanbul



Source: IETT, 2016

4. IETT Service Quality Measurement Model

Measurement and assessment of IETT's services, which cover a vast area, are crucial Istanbul's public transportation system and city life. For that purpose, Service Quality Measurement Model (SQMM) is established and implemented in order to evaluate IETT's performance, determine quality level of its services and find areas for improvement.

SQMM, which is developed by IETT in 2012, defines service quality and how to measure it at every contact points with customer on a basis, which is based on eight criteria of EN 13816 Standard, and sets boundaries. EN 13816 Standard grounds on service quality loop and assessment of operations from both of customers' and operators' point of view. Within the scope of SSQM, each contact point is audited implicitly and explicitly regarding to En 13816 Standard. Analytic Hierarchy Process (AHP) is used in order to determine weights of main criteria for each contact point and weights of each contact point with respect to total score.

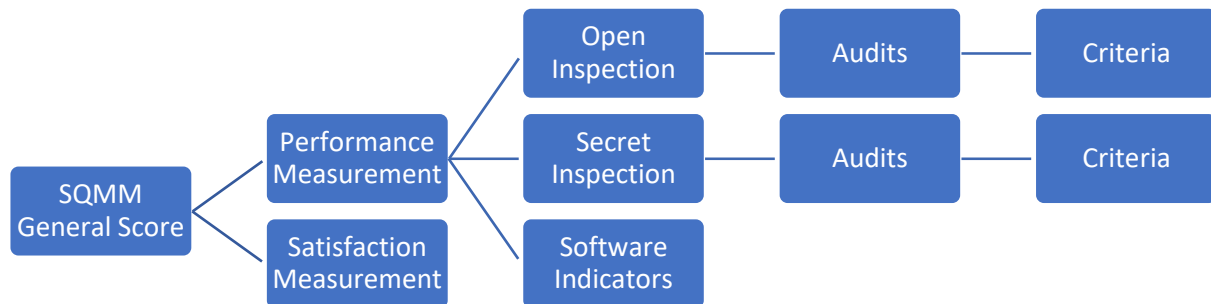
4.1. Analytic Hierarchy Process (AHP)

AHP, developed by Thomas L, Saaty in 1971, is a multi-criteria decision making method, which uses qualitative and quantitative criteria by deriving scale values from pair-wise comparisons and ratings (Ho, 2008). It is a simple decision making tool for solving complicated, unstructured and multi-dimensional problems. Main aim may constitute of many different sub-specifications on different levels. The ultimate goal is to choose the best alternative with respect to main aim, which is at the top of the hierarchy (Ünal, 2011). There are specifications, which contribute to main aim, on the lower levels of the hierarchy. Steps of implementation of AHP are as followings (Zahedi, 1986):

1. Build hierarchy of factors, which affects the goal
2. Prioritize specifications on different level by pair-wise comparisons
3. Calculate and normalize the greatest eigenvalue and eigenvector of priorities of specifications in order to prioritize factors at the bottom level
4. Conduct sensitivity analysis in order to find out how much each priority affects the main aim.

Hierarchical structure of SSQM is built by using hierarchical structure of AHP (Figure 3).

Figure 3 Hierarchical Structure of SSQM



Source: IETT, 2015

SSQM score is obtained in two steps. On the first step, score of questions of sub-criteria for an audit point is calculated as percentage. Each question can only have two values: 0 or 1. Total score for sub-criteria is normalized by hundred. On the second step, how much a main category affects score of an audit point is determined by AHP. 5 point Likert scale is used for scoring process (IETT, 2015). Pair-wise comparisons for main categories are made by experts. Then, the weights are obtained by normalizing the pair-wise comparison values. General score of SQMM consists of performance measurement score and customer satisfaction survey score. According to 2015 AHP values, 68% (19% from open inspections, 34% from secret inspections, 15% from software indicators) of general score comes from performance measurement and 32% of general score comes from measurement of customer satisfaction (Table 1).

Table 1 Pair-wise Comparison, Normalization and Weights of Main Categories

SQMM Main Categories	Open Inspection	Secret Inspection	Software Indicators	Satisfaction Measurement	Normalization	Open Inspection	Secret Inspection	Software Indicators	Satisfaction Measurement	Weights
Open Inspection	1,00	0,44	1,14	0,85		0,19	0,15	0,17	0,26	19%
Secret Inspection	2,29	1,00	1,71	1,08		0,43	0,34	0,25	0,33	34%
Software Indicators	0,87	0,58	1,00	0,35		0,16	0,20	0,15	0,11	15%
Satisfaction Measurement	1,17	0,93	2,88	1,00		0,22	0,31	0,43	0,30	32%
Total	5,33	2,95	6,74	3,28						100%

Source: IETT, 2015

4.2. Performance Measurement

Performance measurement consists of open inspection, secret inspection and software indicators. Open inspection and software indicators measure the organization's performance directly, whereas secret inspection measures the organization's performance from the customers' point of view. Because of this reason, the model is built in a way that secret inspection affects SQMM general score more than the others. Performance measurements are realized on monthly basis (IETT, 2015).

4.2.1. Open Inspection

Each of the contact points, involved in open inspection process, are audited from all possible aspects. Inspections are planned before the realization of field study and data came from the field are analysed to obtain results (IETT, 2015). The points involved in the open inspection process are below:

- Bus
- Bus Stop
- Main Station
- Ticket Sales Dealer
- Ticket Sales Counter
- Automated Ticket Sales Machine
- Chief of Main Station
- Travel Card Office
- Lost and Found Office
- Web-site
- Tunnel System
- BRT Station
- Nostalgic Tram
- BRT Bus

These points are audited periodically. Number of inspections is determined according to number of contact points. For some points, 100% inspection is made, while sampling method (with 95% significance and 5% tolerance) is used for others (IETT, 2015).

4.2.2. Secret Inspection

Each of the contact points, involved in secret inspection process, is audited within the frame of mysterious customer method. The most important point is that audits are realized from customers' point of view secretly. Similar with open inspection process, secret inspection process also consists of planning of field study, implementation of field study, analysing data and obtaining results (IETT, 2015). In addition to these steps, audit scenarios are prepared in

secret inspection. Audit scenarios consist of three steps; pre-trip, trip and post-trip. Customer experience is measured and evaluated within scenarios from end to end (IETT, 2015). Secret inspection scenarios are listed below:

- BRT System
- Inter-route
- Nostalgic Tram
- Tunnel System
- Travel Card Office
- Call Center
- Request & Complaint
- Web-site
- Journey Planner - “MobiETT”
- Journey Planner - “How Can I go there”
- Lost and Found Office
- Social Media
- Main Station

In secret inspection process, 100% inspection is made for some points, while sampling method (with 95% significance and 5% tolerance) is used for others (IETT, 2015).

Preparing suitable scenarios for each contact point and asking proper questions within these scenarios are critical factors for success of the secret inspection scenarios (IETT, 2015).

4.2.3. Software Indicators

Software indicators, prepared by expert focus groups, are the key indicators that affect IETT’s service quality directly. Software indicators are:

- Ratio of giving service uninterruptedly,
- Level of service of call center,
- Ratio of calls answered on time,
- Regularity,
- Punctuality,
- Loss trip ratio (IETT, 2015).

4.3. Satisfaction Measurement

The most used method for measurement of service quality in public transportation services is customer satisfaction surveys. Satisfaction measurement within the scope of SQMM consists of Customer Satisfaction Survey (CSS). CSS, which is implemented once in a year, is prepared according to EN 13816 Standard. CSS measures how customers perceive IETT, their expectations from IETT and their satisfaction about IETT (IETT, 2014). As satisfaction measurement is done once in a year, this yearly score is used for whole months while calculating monthly SQMM score (IETT, 2015).

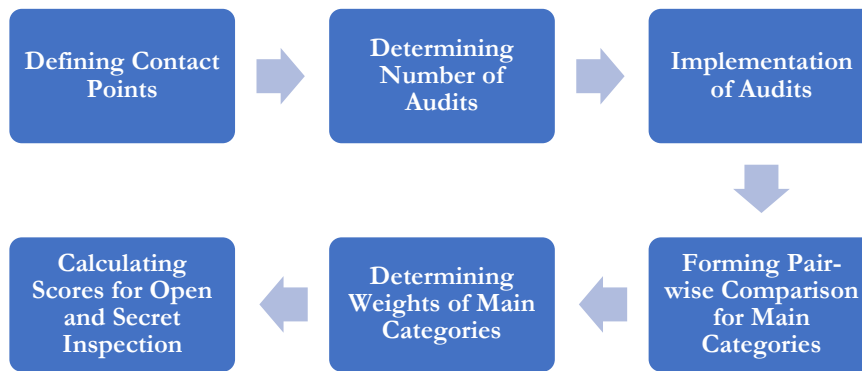
4.3. IETT SQMM Practice

IETT implemented pilot study of SQMM in 2012 and launched SQMM fully in all contact points in 2013.

In application, firstly contact points are defined. Subsequently, number of open and secret inspections is determined. 100% inspection is made for some points, while sampling method (with 95% significance and 5% tolerance) is used for others. Then, pair-wise comparisons of criteria are done and their weights are determined by using AHP. Criteria weights are multiplied with inspection scores in order to obtain open and secret inspection scores.

Inspection criteria evaluated in 5-point scale. Pair-wise comparison tables, which are obtained after evaluation of criteria, are normalized to find out weights of each contact point within open and secret inspection processes.

Figure 1 IETT SQMM Flow Chart



Source: IETT, 2015

The weights of open and secret inspection points and software indicators are shown in the tables below (Table 2&3).

Table 2 Pair-wise Comparisons of Open Inspection Points

Open Inspection	Bus	Bus Stop	Main Station	Ticket Sales Dealer	Ticket Sales Counter	Automated Ticket Sales Machine	Chief of Main Station	Travel Card Office	Lost and Found Office	Web-site	Tunnel System	BRT Station	Nostalgic Tram	BRT Bus
Bus	1	2,45	3,00	3,46	3,46	3,87	3,87	2,45	4,47	2,45	2,24	1,73	2,00	0,41
Bus Stop	0,41	1	0,58	0,82	0,82	1,00	1,00	0,58	3,16	0,58	0,82	0,32	0,82	0,22
Main Station	0,33	1,73	1	2,45	2,45	2,45	2,45	1,73	3,16	1,73	1,41	0,58	2,45	0,26
Ticket Sales Dealer	0,29	1,22	0,41	1	1,73	1,73	0,82	1,22	2,24	1,73	0,58	0,29	0,58	0,26
Ticket Sales Counter	0,29	1,22	0,41	0,58	1	1,00	2,45	1,22	2,24	0,58	0,58	0,29	0,58	0,26
Automated Ticket Sales Machine	0,26	1	0,41	0,58	1	1	1,73	1,22	2,24	0,33	0,58	0,26	0,58	0,26
Chief of Main Station	0,26	1	0,41	1,22	0,41	0,58	1	1,00	2,24	1,22	0,58	0,45	0,58	0,26
Travel Card Office	0,41	1,73	0,58	0,82	0,82	0,82	1	1	2,45	1,73	1,00	0,41	0,82	0,26
Lost and Found Office	0,22	0,32	0,32	0,45	0,45	0,45	0,45	0,41	1	0,33	0,45	0,20	0,45	0,20
Web-site	0,41	1,73	0,58	0,58	1,73	3	0,82	0,58	3	1	1,00	0,41	0,82	0,29
Tunnel System	0,45	1,22	0,71	1,73	1,73	1,73	1,73	1	2,24	1	1	0,26	1,73	0,45
BRT Station	0,58	3,16	1,73	3,46	3,46	3,87	2,24	2,45	5	2,45	3,87	1	3,87	0,41
Nostalgic Tram	0,5	1,22	0,41	1,73	1,73	1,73	1,73	1,22	2,24	1,22	0,58	0,26	1	0,26
BRT Bus	2,45	4,47	3,87	3,87	3,87	3,87	3,87	3,87	5	3,46	2,24	2,45	3,87	1
Total	7,85	23,5	14,4	22,8	24,7	27,1	25,2	20	40,7	19,8	16,9	8,89	20,1	4,78

Source: IETT, 2015

Table 3 Normalization of Open Inspection Points

Normalization	Bus	Bus Stop	Main Station	Ticket Sales Dealer	Ticket Sales Counter	Automated Ticket Sales Machine	Chief of Main Station	Travel Card Office	Lost and Found Office	Web-site	Tunnel System	BRT Station	Nostalgic Tram	BRT Bus	Weights
Bus	0,13	0,1	0,21	0,15	0,14	0,14	0,15	0,12	0,11	0,12	0,13	0,19	0,1	0,09	14%
Bus Stop	0,05	0,04	0,04	0,04	0,03	0,04	0,04	0,03	0,08	0,03	0,05	0,04	0,04	0,05	4%
Main Station	0,04	0,07	0,07	0,11	0,1	0,09	0,1	0,09	0,08	0,09	0,08	0,06	0,12	0,05	8%
Ticket Sales Dealer	0,04	0,05	0,03	0,04	0,07	0,06	0,03	0,06	0,05	0,09	0,03	0,03	0,03	0,05	5%
Ticket Sales Counter	0,04	0,05	0,03	0,03	0,04	0,04	0,1	0,06	0,05	0,03	0,03	0,03	0,03	0,05	4%
Automated Ticket Sales Machine	0,03	0,04	0,03	0,03	0,04	0,04	0,07	0,06	0,05	0,02	0,03	0,03	0,03	0,05	4%
Chief of Main Station	0,03	0,04	0,03	0,05	0,02	0,02	0,04	0,05	0,05	0,06	0,03	0,05	0,03	0,05	4%
Travel Card Office	0,05	0,07	0,04	0,04	0,03	0,03	0,04	0,05	0,06	0,09	0,06	0,05	0,04	0,05	5%
Lost and Found Office	0,03	0,01	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,03	0,02	0,02	0,04	2%
Web-site	0,05	0,07	0,04	0,03	0,07	0,11	0,03	0,03	0,07	0,05	0,06	0,05	0,04	0,06	5%
Tunnel System	0,06	0,05	0,05	0,08	0,07	0,06	0,07	0,05	0,05	0,05	0,06	0,03	0,09	0,09	6%
BRT Station	0,07	0,13	0,12	0,15	0,14	0,14	0,09	0,12	0,12	0,12	0,23	0,11	0,19	0,09	13%
Nostalgic Tram	0,06	0,05	0,03	0,08	0,07	0,06	0,07	0,06	0,05	0,06	0,03	0,03	0,05	0,05	5%
BRT Bus	0,31	0,19	0,27	0,17	0,16	0,14	0,15	0,19	0,12	0,17	0,13	0,28	0,19	0,21	19%
Total															100%

Source: IETT, 2015

Pair-wise comparisons, given in Table 2, are normalized and weights of these points are obtained as given in Table 3. In a similar way, pair-wise comparisons for secret inspection scenarios and software indicators are formed and, then, weights are obtained by normalization. After evaluation of open and secret inspection points according to main criteria, pair-wise comparisons of each criterion are formed according to main categories of EN 13816. The weights of main categories of EN 13816 are calculated by AHP for each inspection point. These weights are used in order to get score of each contact point. Even though AHP has a consistent system within itself, the validity of results is dependent on consistency of pair-wise comparisons, which are made by the decision makers. AHP suggests a process for measurement of such consistency. With this process, it is possible to test consistency of pair-wise comparisons of criteria. If calculated consistency ratio is smaller than 0,1, it means that decision makers' comparisons are consistent. If calculated consistency ratio is greater than 0,1, it means that decision makers' comparisons are inconsistent or there is a calculation mistake. Under such condition, the study should be done again. Some of the inspection points may not require evaluation that involves all of the eight main categories of EN13816. For such inspection points, pair-wise comparisons are made and weights are calculated only for relevant main categories. For example, only seven main categories are involved in the Tunnel System inspection. Pair-wise comparisons, normalization and weights for Tunnel System (open inspection) are shown in Table 4.

Table 4 Pair-wise Comparisons, Normalization and Weights of EN Categories for Tunnel System (Open Inspection)

Tunnel System (Open Inspection)	Information	Security	Customer Care	Accessibility	Comfort	Availability	Environmental Impact	Normalization	Information	Security	Customer Care	Accessibility	Comfort	Availability	Environmental Impact	Weights
Information	1,00	0,59	1,35	0,72	0,98	0,76	1,32	0,13	0,12	0,15	0,11	0,12	0,13	0,14	12,8%	
Security	1,69	1,00	1,69	1,23	1,60	1,18	1,85	0,21	0,20	0,19	0,20	0,20	0,20	0,19	19,8%	
Customer Care	0,74	0,59	1,00	0,55	1,02	0,71	1,55	0,09	0,12	0,11	0,09	0,13	0,12	0,16	11,7%	
Accessibility	1,40	0,81	1,83	1,00	1,22	0,86	1,20	0,18	0,16	0,21	0,16	0,15	0,15	0,12	16,1%	
Comfort	1,02	0,63	0,98	0,82	1,00	0,68	1,23	0,13	0,13	0,11	0,13	0,12	0,12	0,13	12,3%	
Availability	1,32	0,85	1,40	1,16	1,47	1,00	1,58	0,17	0,17	0,16	0,18	0,18	0,17	0,16	17,0%	
Environmental Impact	0,76	0,54	0,64	0,83	0,81	0,63	1,00	0,10	0,11	0,07	0,13	0,10	0,11	0,10	10,3%	
Total	7,93	5,00	8,89	6,30	8,11	5,83	9,73								100%	

Source: IETT, 2015

Inspection scores are obtained for 14 inspection points as a result of open inspections. An inspection point's general score is calculated by multiplying inspection score by weights obtained from AHP. An example of score calculation of Tunnel System (open inspection) is given in Table 5.

Table 5 Evaluation of Tunnel System According to EN Categories

Tunnel System (Open Inspection)	Score	Weight	Weighted Score
Information	%97	%13	%13
Security	%96	%20	%19
Customer Care	%100	%12	%12
Accessibility	%100	%16	%16
Comfort	%100	%12	%12
Availability	%100	%17	%17
Environmental Impact	%100	%10	%10
Total		%100	%99

Source: IETT, 2015

Open inspection general score is obtained by multiplying weight of each inspection point by score of each inspection point. An example of such calculation for open inspection is given in Table 6. Such calculations are also made for secret inspection and software indicators.

Table 6 General Evaluation of Open Inspection

Open Inspection	Score	Weight	Weighted Score
Bus	%91	%14	%12
Bus Stop	%81	%4	%3
Main Station	%70	%8	%6
Ticket Sales Dealer	%85	%5	%4
Ticket Sales Counter	%90	%4	%4
Automated Ticket Sales Machine	%92	%4	%4
Chief of Main Station	%85	%4	%3
Travel Card Office	%60	%5	%3
Lost and Found Office	%93	%2	%2
Web-site	%91	%5	%5
Tunnel System	%99	%6	%6
BRT Station	%82	%13	%11
Nostalgic Tram	%98	%5	%5
BRT Bus	%90	%19	%17
Total		%100	%86

Source: IETT, 2015

SQMM general score is obtained by multiplying scores of open inspection, secret inspection, software indicators and CSS by their weights.

5. Conclusion

IETT aimed to make its public transportation services comparable in an international environment by implementing SQMM. As a result of SQMM, which is based on EN 13816, IETT is able to compare its level of service quality with not only its past level of service quality but also other public transportation organizations.

With the help of regular inspections, IETT can determine how far it is from its target level and explore areas for potential improvements. As the model is being implementing on defined periods, seasonal follow-up of performance is possible. Also, it allows executives to watch the organization from large scale. Due to flexibility of criteria, it can be

adapted to improvements in the organization. Recording results also can it possible to make investigation towards to the past. The model is customer oriented. Customers' needs and requests are prioritized with the help of secret inspection process. Evaluation of monthly performance results is a good example of agility of management.

Performance targets of contact points are evaluated and updated annually. So, specific, measurable, achievable, realistic and time-limited targets are set for each point. Then results are reported and in case of failing the target, reasons of such events are reported. So we can say that the model involves "management by objectives" approach. The improvements, which are implemented as a result of SQMM since 2013, helped to the improvement of İETT. Also, SQMM inspections simultaneously contributed to improvements in customer satisfaction.

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PERFORMANCE-BASED TASK APPOINTMENT MODEL IN URBAN PUBLIC TRANSPORTATION: THE CASE OF IETT

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Abstract:

Provision of quality services in urban public transportation has become a significant field of research to be analysed separately, particularly for metropolitan cities where population and other components of traffic are rapidly increasing. Quality of public transportation operators can be figured out with the help of various parameters. Among those, human resources undoubtedly have a significant role. Fulfilment of operators' strategic aims and targets is in direct proportion to performance and satisfaction of employees.

With an innovative approach, this study aims to suppose a new, performance-based task assignment model that grounds on the target to achieve a fair work distribution by analysing General Directorate of IETT's current "task assignment process for drivers", which manages urban public transportation of Istanbul Metropolitan City. This model identifies specific performance indicators and gives points to the drivers according to competency. New software has been developed with an algorithm to allow drivers to choose the routes they will work on, depending on their competency points. With 184 drivers, 22 routes and 135 buses, IETT Sarıgazi Bus Terminal has been chosen as the pilot area of this new idea of "self-appointment".

Keywords:

IETT, Urban Public Transportation, Motivation, Rewarding, Performance Evaluation, Staff Scheduling, Preference

1. Introduction

As the most crowded city of Europe, Istanbul is one of the most significant centers of trade and thus transportation, with an approximate population of 15 million and a ridership of 28 million. Provision of quality services in urban public transportation has become a significant field of research to be analysed separately as the living areas within the city has expanded towards the outer sides and the current urban transportation system has fallen behind the developments. Quality of services is a significant fact for public transportation operators and this fact is composed of various parameters. Among these parameters, human resources and management undoubtedly have significant roles.

The concept of human resources management has evolved to a different level within the last years. Organizations has been aware of the fact that an efficient management of human resources is a key factor to succeed, to survive and even step forward within the modern competitive market. Organizations can be carried to success by the achievements and performances of people (employees). Today a number of organizations are allocating great amounts of budgets to ensure employees' satisfaction. The reason is the idea that an increase in satisfaction will lead to better motivation, efficiency and loyalty.

Satisfaction and performances of employees can only be obtained in a peaceful working environment. Providing such an environment requires challenging processes and high performance of management. Modern and innovative organizations apply performance-based management systems to increase employees' satisfaction and performance. Performance based management systems develop a competitive but fair environment, enable self-evaluation of

employees and take necessary steps to make up deficiencies. On the other hand, performance based management systems also reward employees with high performances in various ways, following an evaluation process. These rewards are generally given as premiums in addition to wages.

This study brings a different perspective to rewarding and creates a new model called as “self-appointment” that enables employees to choose the routes they will work on, according to monthly performance values. Within the scope of this performance-based task assignment model that grounds on the target to achieve a fair work distribution by analysing General Directorate of IETT’s current “task assignment process for drivers”, IETT Sarigazi Bus Terminal have been chosen as the pilot area of this new idea of “self-appointment”, with its 184 drivers, 22 routes and 135 busses.

2. Staff Scheduling

Staff scheduling is one of the key components of planning processes for both public and private organizations. Besides the budgetary aspects, this process should also be considered with its emotional side as it directly related with humans. Due to the advances in technology, today’s work force scheduling has been concentrated upon the minimization of costs and this fact has led to a number of new research studies.

Staff scheduling does not only consist of creating schedules of shifts and daily tasks, but also aims to preserve quality of services, provide satisfaction for both customers and employees. Organizational and legal amendments, competency and preferences of employees, labor demand and many other factors complicate the staff scheduling process. The optimum staff scheduling should be as effective as possible in task appointment. In this way costs will decrease while employees and customers become more satisfied.

Today, organizations need auxiliary tools within decision-making processes to ensure high levels of employee satisfaction, for the true employees and in true periods of time, with a true cost as well. This auxiliary system would typically include various components such as electronic tables and database tools created with mathematical models and algorithms.

A large number of commercial software packages are available to help organizations in this context. Particularly in our field, which is the field of transportation, a Canadian company (Hastus) provides staff scheduling, operation management and reporting services while a Germany-based software (IVU) brings all scheduling and appointment functions together for the staff and vehicles in a single system that is widely used in all Europe. South American countries, on the other hand, frequently use a Spanish software (Goal System). This software, as all the others do, provides an optimum bus and driver optimization.

A large number of studies have been conducted on staff scheduling methods since 1950s. For this reason, there is also a large quantity of resources in this field, available within the literature. The first study was conducted by Edie (1954) on sufficient numbers of cabinet operators to meet various service requirements during different times of the day. Dantzig (1954) focuses on linear programming to create time schedules for vehicle cabinet operators and has conducted many other research studies to apply this approach to larger-scaled problems. Aggarwal (1982) explains staff planning processes, specific restrictions and solutions in the field of service industries. Another research compares workforce scheduling programs with intuitive methods and linear programming methods (Bechtold, 1991). Al-Tabtabai and Alex (1997) discuss how a construction company dealing with multiple projects could apply genetic algorithm methods to appoint workforce for a specific problem. Aickelin (1999) analyses problem-specific knowledge to develop a genetic algorithm approach for a problem in appointing nurses. Main theme of this study is balancing feasibility features and the cost of solutions. Typical genetic algorithms may yield negative results. In order to prevent these negative results, problem-specific information should be introduced to the problem in different ways. The most effective variant of the algorithm supposed in this study revealed a possibility over %99 of producing an optimum solution (Aickelin, 1999).

3. Performance Evaluation and Rewarding

Performance evaluation is a system that manages organizational performance evaluation processes including measuring employees according to the criteria determined within the light of aims and competencies, having feedbacks and conducting reporting procedures. Performance Evaluation System is a tool that is used by organizations to measure individual performances and to help employees deliver outstanding performances.

Fındıkçı, İ. (1999) states that “performance evaluation aims to evaluate individuals as a whole, considering all relevant aspects, to reward successful ones and to give opportunity to make up deficiencies”. The main principle of performance evaluation is not to punish individuals due to failures but to reward them after achievements.

Performance evaluation is also a procedure to collect organizational data relevant to the level of performance delivered by an employee during work hours (Waxin and Bateman, 2009). It is also a process that is used to value and thus contribute to task performances of individuals. Performance evaluation is a part of performance management systems that depends on the targets determined together with employees. Performance evaluation is described as a system of periodical controls that evaluates employees’ performance levels in specific tasks and creates an opportunity for an early response (Jordan, 2009).

3.1. Performance rewarding

Rewarding is a significant motivator that should be emphasized when individual performances are discussed. Rewarding includes appreciations for hard works, growth and development. In other words, rewards are acquisitions of an employee as a result of delivering a better performance than expected in a specific task. According to Lundy and Cowling (1996), the concept of reward includes both direct labor wages and indirect acquisitions of employees. These rewards are the wages given for the efforts and capabilities of employees in line with the contract signed between employer and employees and described as external rewards. On the other hand, organizational rewards include internal rewards such as status, admiration, company membership, safety, career, development, sense of appreciation and success.

Rewarding is not only based on material values. This system is related with both internal and external motivation that includes monetary and non-monetary rewards. A research study conducted in United Kingdom regards the connection between wages and performances as a significant and indispensable concept for the employer and professional staff (Armstrong, 1993).

4. A Different Perspective in Rewarding: Performance-Based Task Appointment Model

With an innovative approach, the supposed model aims to create a new, performance-based task assignment model that grounds on the target to achieve a fair work distribution by analyzing General Directorate of IETT’s current “task assignment process for drivers”, which manages urban public transportation of Istanbul city.

This model identifies specific performance indicators and competency points that will be given to the drivers according to the data of task completion during the operation period. New software has been developed with an algorithm to allow drivers to choose the routes they will work on, depending on their competency points. With 184 drivers, 22 routes and 135 buses, IETT Sarıgazi Bus Terminal has been chosen as the pilot area of this new idea of “self-appointment”.

Aims of the suggested system are as follows;

- To systematize task writing,
- To ensure “a fair distribution of work”,
- To create a “transparent” structure,
- To “increase competitiveness” with the point scoring system,
- To obtain better “labor efficiency” by increasing performances,
- To increase motivation, satisfaction and knowledge of employees,
- To ensure the “peace in working environments”,

- To increase “customer satisfaction”,
- To improve quality of services.

4.1. Determining and weighting performance criteria

Strategic aims and targets of the organization, potential improvements in quality of services and labor efficiency as well as potential contribution to employees’ skills and development were the factors considered during the determination process. As a result, seven staff performance criteria that can be called shortly as SMART (Specific, Measurable, Acceptable, Realistic, Temporal) were identified. All of these criteria are numerically measurable.

These performance criteria were weighted by thirteen experts within the relevant field, with the use of AHP (Analytic Hierarchy Process). As a result, competency points were obtained for each employee. Employees have an access to their competency points and can make objections about the points through the “e-şoför” (e-driver) system. This transparent approach facilitates participation of the staff and creates an opportunity for a timely response in cases of mistaken data entered into the system.

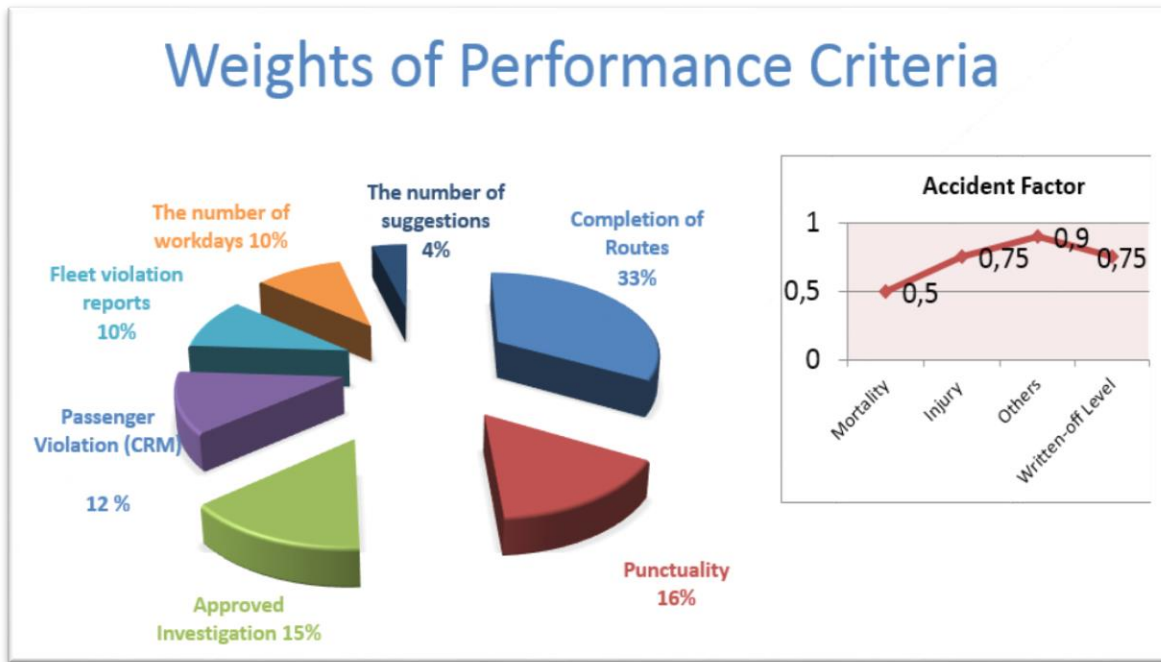


Figure 1 Weights of performance criteria

Route completion: Route-km completion has the largest weight (%33) among all the criteria. This term describes the rate of completed services, excluding the lost operational kilometres (completed km/planned km).

Punctuality: This term explains completion of services in time. This rate is obtained through the AKYOLBIL system managed by Fleet Managers that controls the punctuality of vehicles (-1, +3 minutes) and conformity with the scheduled durations between source and destination points.

Approved investigation reports: This term describes the reports about violations that impair the quality of public transportation.

Passengers’ satisfaction (CRM): This data is obtained through passengers’ complaints about drivers’ violations during the operation of public transportation services.

Fleet violation reports: These reports are prepared by the Fleet Management Center about violations conducted by the drivers within the period between beginning and end of services.

The number of workdays: This is the number of days when drivers are expected to work during a month. For this model, the number of workdays that might affect employees' performances was determined as 22, excluding weekends and off-days. Exceptions about the staff were not considered within the scope of this measurement.

The number of suggestions: These are suggestions related with significant points identified by drivers during the operation of public transportation services and aim to improve the quality of services. Each employee is supposed to report at least one suggestion.

The accidents, which are highly critical for operators, were included as a general factor (multiplier) within the study. In addition, seniority years were not considered within the study but occasionally used to differentiate employees with same points and preferences.

4.2. Software development (SIS)

SIS application was developed using asp.net on Microsoft .Net platform. C# was used as the software language and the front interface was created using various techniques including JavaScript, html (Hyper Text Mark-up Language), Ajax (Asynchronous JavaScript and XML), css (Cascading Style Sheets), and query. The application was developed in a multi-layered structure and consists of three different layers, namely data layer, business process layer and presentation layer.

Data layer of the application operates on the MS SQL Server. Database object models were designed during the development process of the data model, using the Sybase Power Designer tool. The project was hosted by Windows Server 2012 on the ISS (Internet Information Services) and opened to public access after necessary penetration tests were conducted.

Through this application, drivers who work for the Regional Directorates of IETT may choose;

- Bus routes they demand to work on,
- Type of services (with rest breaks, direct, morning single, evening single),
- Off-days (rest days),
- Type of substitute driver (in normal services: a partner driver).

To summarize, drivers have a right to choose all preferences that do not negatively affect the services through this application.

4.3. Pilot Scheme

With 184 drivers, 22 routes and 135 buses, IETT Sarigazi Bus Terminal has been chosen as the pilot area of this new idea of "self-appointment". In order to properly test this new model, meetings were held to discuss current progress of the system and to exchange ideas with the significant shareholders of the General Directorate of IETT, labor unions.

Then, a training schedule for drivers was created. Training programs were designed to allow groups of ten participants in order to ensure better understanding of the topics. The participants were informed about the advantages of this system both for the staff and the organizations. On the other hand, training programs were used to break the resistance of the staff, particularly encountered during the periods of transition. Giving necessary information for the shareholders and completing the training programs, the process was furthered with the phase of preferences.

4.4. Test phase and measurement of service points

The process was divided in two phases as 1st and 2nd Terms of Preferences to be done according to performance points. If 75% of the staff is appointed in 1st Preference Term, 2nd Term will not be carried out.

As the preferences were considered for the first time with this model, which is based on monthly performance points, the placement process was carried out according to the average points of the last six months. Moreover, there was not any list of base points for the services as it was to be the first term for determining preferences.

After the necessary preparations for the software were completed, employees were asked to choose their preferences to test the model. As a result of the test phase of preferences, 60% of 184 employees working for Sarigazi Terminal were appointed to preferred tasks after the 1st and 2nd Preference Terms, while rest of the staff was randomly placed into remaining services.

Employees decided their preferences after analyzing the preference lists which contain all details about relevant services. In the 1st Preference Term, 51% of all employees were appointed to the services they preferred. However, a 2nd Term was carried out as the 75% condition had not been fulfilled. Appointment process was concluded after the 2nd Placement which was done randomly in line with certain restrictions and criteria. Analysis of the preference process is given in Table 1.

Table 1. Benchmark test results of worker placement test analysis

SARIGAZI TERMINAL PERFORMANCE-BASED PLACEMENT ANALYSIS							
Number of participants	Preferential Placement				Random Placement	Alternate	
184	111				54	19	
Order of Preference	1st Placement		2nd Placement				
	95		16				
	Normal	With Rest Breaks	Normal	With Rest Breaks			
	32	63	8	8			
1st Preference	10	16		5			
2nd Preference	8	8	4	1			
3rd Preference	4	8		1			
4th Preference		7		1			
5th Preference	2	4					
6th Preference		3					
7th Preference		3					
8th Preference	4						
9th Preference	2		2				
10th Preference		1					
11th Preference		2					
12th Preference		2					
13th Preference		4	2				
14th Preference	2	3					
15th Preference		2					
TOTAL	32	63	8	8			

Base points of services were also determined according to the results obtained through the test process (Table 2). These base points revealed most preferred types of services and thus contributed to the actual preference process.

Table 2. List of service points

Workday							
Route Number	Service Number	Service	Duration	Beginning of the Service	End of the service	Terminal	Point
11	761	11/761/With Rest Break	480	05:45	19:00	ALTUNİZEDE	85,83333
11	770	11/770/Station Line	480	15:15	22:30	YENİDOĞAN	87,16667
11	769	11/769/Station Line	480	06:50	14:00	YENİDOĞAN	87,5
11	771	11/771/With Rest Break	480	07:10	20:10	YENİDOĞAN	89,83333
122D	6174	122D/6174/Station Line	440	16:00	22:30	SARIGAZI GARAJI	61,83333
122D	6175	122D/6175/With Rest Break	475	06:30	20:10	Ş.ŞAHİNBEY	86,83333
122M	6215	122M/6215/With Rest Break	480	06:30	19:00	Ş.ŞAHİNBEY	77,33333
122M	6213	122M/6213/With Rest Break	480	06:10	18:30	Ş.ŞAHİNBEY	85,33333

4.5. Actual preference process

Problems encountered during the test phase was analysed before the actual preference process. As a result of this analysis, frequent mistakes of employees were identified and necessary steps were planned to improve deficient sides. It was revealed that multiple parameters caused confusion for the employees during the preference process. Therefore, the necessary steps were taken as follows:

- The preferences were prepared as a package and a user-friendly interface was developed. Counselling Offices were established in order to facilitate the process and analyse possible complaints.
- Perception management meetings were held with the employees and representatives of labor unions in order to manage the transition period.

Work distribution manager converted services offered to the rotation groups of the current program into packages according to status of tasks such as being performed in a work day, on Saturday, Sunday and off-days and entered this data into the SIS software to create preference forms. Employees could view service and sign-board information, beginning and end hours of related bus services that could be chosen through the interface of preference list according to its type (With Rest Break – Normal). Employees could also view compatibility of preferred services with the days they do not work. The software was adjusted to allow employees prefer services according to this list (Figure 2).

Servis Arama Formu									
Filter: <input type="text" value="Type to filter..."/>									
Show: <input type="text" value="20"/>									
Gün Tipi	Hat Bilgisi	Tabela	Hat Adı	Başlama Saati	Bitiş Saati	Mesai (dk)	Repo		
İç Günü Cumartesi Pazar	120S/1571/Ara Dinlen 120S/1571/Ara Dinlen /T/	52 52 52	SANCAKTEPE - ÜSKÜDAR SANCAKTEPE - ÜSKÜDAR ---	06:40 06:40 ---	20:16 19:45 ---	510 480 0	Pazar	Seç	
İç Günü Cumartesi Pazar	120S/1573/Ara Dinlen 120S/1573/Ara Dinlen /T/	53 53 53	SANCAKTEPE - ÜSKÜDAR SANCAKTEPE - ÜSKÜDAR ---	07:10 07:10 ---	20:30 19:30 ---	510 440 0	Pazar	Seç	
İç Günü Cumartesi Pazar	14YK/1801/Ara Dinlen 14YK/1801/Ara Dinlen /T/	14 14 14	YENİDOĞAN / ŞİLE YOLU - AYRILIKÇEŞME YENİDOĞAN / ŞİLE YOLU - AYRILIKÇEŞME ---	05:35 05:30 ---	19:00 19:00 ---	440 445 0	Pazar	Seç	
İç Günü Cumartesi Pazar	14YK/1803/Ara Dinlen 14YK/1803/Ara Dinlen /T/	15 15 15	YENİDOĞAN / ŞİLE YOLU - AYRILIKÇEŞME YENİDOĞAN / ŞİLE YOLU - AYRILIKÇEŞME ---	06:00 06:00 ---	19:10 19:10 ---	475 445 0	Pazar	Seç	
İç Günü Cumartesi Pazar	14YK/1805/Ara Dinlen 14YK/1805/Ara Dinlen /T/	16 16 16	YENİDOĞAN / ŞİLE YOLU - AYRILIKÇEŞME YENİDOĞAN / ŞİLE YOLU - AYRILIKÇEŞME ---	06:30 06:20 ---	19:30 19:20 ---	480 460 0	Pazar	Seç	
İç Günü Cumartesi Pazar	14YK/1807/Ara Dinlen 14YK/1807/Ara Dinlen /T/	17 17 17	YENİDOĞAN / ŞİLE YOLU - AYRILIKÇEŞME YENİDOĞAN / ŞİLE YOLU - AYRILIKÇEŞME ---	06:50 06:50 ---	20:10 20:10 ---	475 480 0	Pazar	Seç	
İç Günü Cumartesi Pazar	14AK/1921/Ara Dinlen 14AK/1921/Ara Dinlen /T/	54 54 54	ALEMDAĞ - ZİVERBEY / KADIKÖY ALEMDAĞ - ZİVERBEY / KADIKÖY ---	05:50 05:50 ---	20:10 19:50 ---	510 480 0	Pazar	Seç	

Figure 2. List of preferable service packages

Actual preference process was launched after the necessary adjustments were applied to the system interface and preference lists.

If any route is transferred from one terminal of İETT to another, the directorate may exchange employees of those terminals as well. As a result of this transfer policy, the number of employees working for Sarıgazi Terminal decreased from 184 to 173. Performance points of these 173 employees were measured according to the data of 11th Month (November) and the preference process was launched by Sarıgazi Terminal Directorate.

Thanks to the necessary adjustments made according to experiences, a pleasing result was obtained. 80% of all employees was placed after the 1st Preference Term, thus a 2nd Term was unnecessary. Findings of the analysis on actual preference process are given below (Table 3).

Table 3. Analysis of results obtained in Sarıgazi Terminal's actual placement process

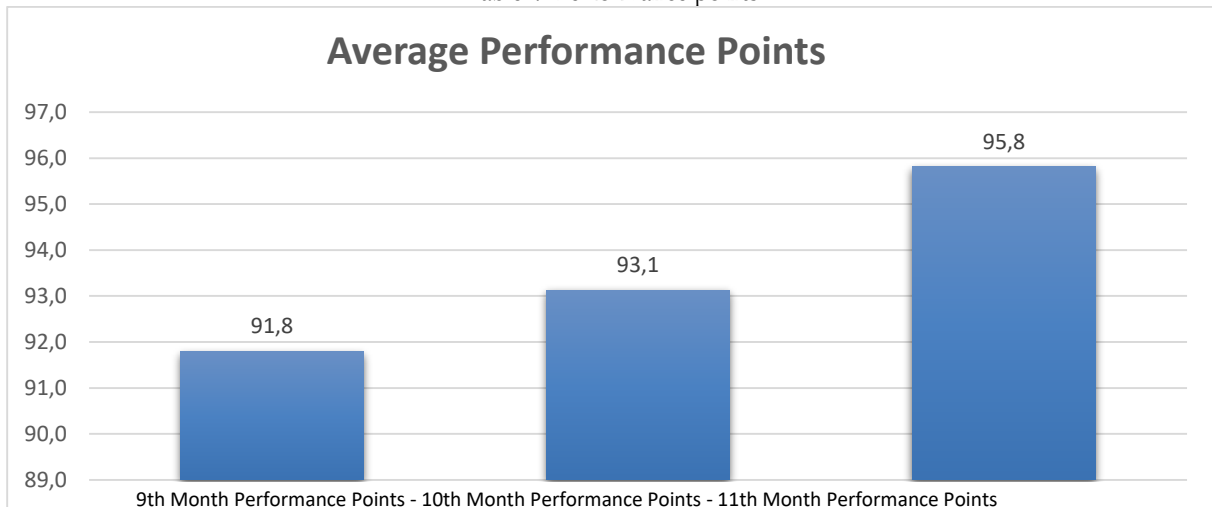
SARIGAZI TERMİNAL PERFORMANS-BASED PLACEMENT ANALYSIS					
Number of Participants	Preferred Placement		Random Placement		Not Placed
173	139		19		15
Order of Preference	With Substitute Driver	With Rest Break	According to Tendencies	Random	
	64	75	10	9	
1st Preference	41				
2nd Preference	23				
3rd Preference	13				

4th Preference	17			
5th Preference	6			
6th Preference	4			
7th Preference	7			
8th Preference	2			
9th Preference	7			
10th Preference	5			
11th Preference	6			
12th Preference	1			
13th Preference	3			
14th Preference	1			
15th Preference	3			
TOTAL	139			

5. Analysis of Results

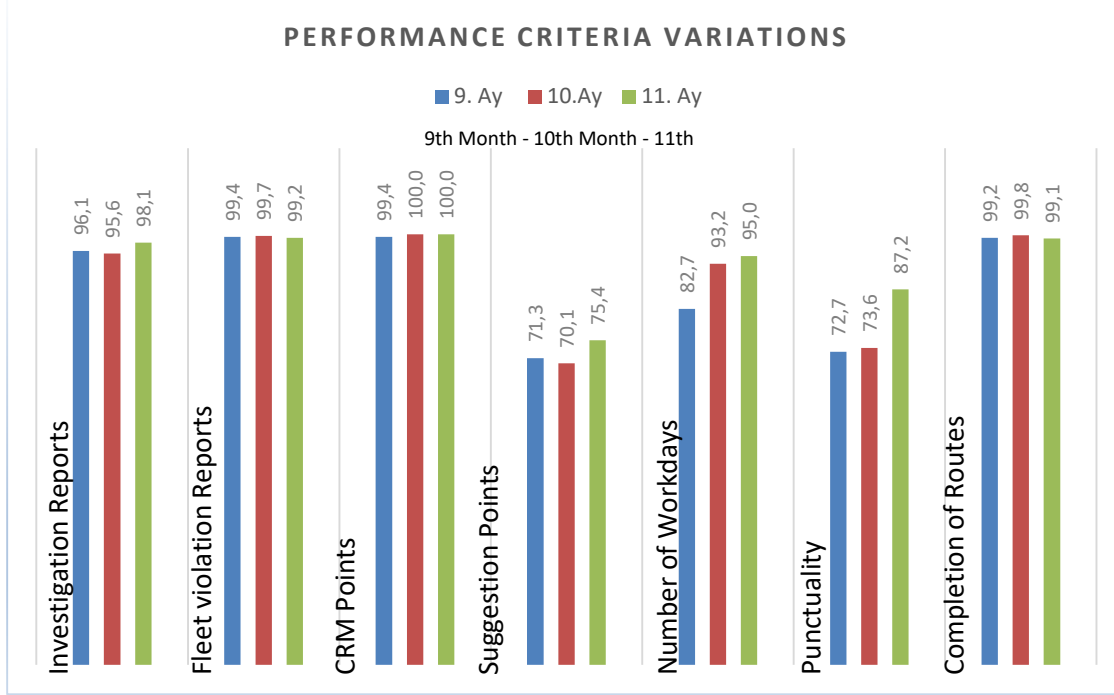
Results obtained through the pilot scheme of the model were found as satisfying. It was observed within this process that a large number of drivers working for Sarigazi Terminal increased their performance points. It was identified that average point of 178 employees working for Sarigazi Terminal was 91,8 in the 9th month while this figure increased up to 93,1 and 95,8 in the 10th and 11th months respectively (Table 4).

Table 4. Performance points



Variations of performance criteria that were used in measurements are given in Figure 3. An increase in a number of criteria can be seen when it is analysed in detail.

Figure 3. Performance criteria variations



The increase in performance points reveals an improvement in quality of services as well. It is because of the positive impacts of improvement in performance criteria on passenger services. For instance, any improvement in punctuality shows the level bus drivers conform to the schedules. An increase in CRM points that represent complaints of passengers reveals the satisfaction level. To summarize, any positive change in performance indicators identified to measure employees' performances carries general performance of organizations to optimum levels.

This model also stimulates self-control skills of employees. In this case, employees started to express suggestions about possible improvements in the services. In addition, this system allowed us to obtain rough data of the implementation process, as a result of the cross checks. We can even say that the competitive environment that occurred after the application of this model raised awareness among the employees of the importance of duties they perform.

5. Conclusion and Evaluation

General Directorate of İETT, which provides round-the-clock urban transportation services in Istanbul, operates 848 different bus routes. These routes show differences according to the districts and regions they are operated in, as well as their levels of difficulty. For instance, while most of the drivers are reluctant to work on congested lines of D-100 Motorway, which are also called as minibus routes, and demand for routes heading to rural areas is rather high. There is no criterion to measure drivers' competency to work on easy or challenging routes within the current system. Drivers are appointed to all the routes in turn, with a rotation system.

Round-the-clock services bring about several challenges for the drivers. Most of the employees demand not to work on Saturday or Sunday to have enough time to spend with their wives and children. But, although the number of services declines, the system requires some of the drivers to work in weekends. In addition, there is not any criterion to choose the drivers who may take holidays in weekdays and the ones who may not.

The current system does not identify any criterion about these highly important issues for drivers, such as the determination of workdays and levels of difficulty. While the rotation system can be reasonably explained to some extent, determination of off-days is a complicated process to clarify. This situation makes employees to question fairness of the work distribution system, results in rumors among them, disturbs the peace of working environment and negatively affects employees' performances. The decrease in employees' performances also reflects on the quality of services.

The supposed model is grounded on the target to increase employees' performances. This can only be obtained by giving an end to the rumors among the employees and helping them understand that the work distribution is conducted fairly. Therefore certain performance criteria were determined and employees were asked to make their own preferences through this new "self-appointment" system. As a result, employees could change the routes they can work on, according to the numerical values of their monthly performances. This new performance-based task appointment model does not allow any kind of human interference and conducts all processes in a transparent way.

Thanks to this performance-based task appointment model, employees started to use their own self-control senses and question the current system. It was also identified looking at the decrease in passenger complaints that drivers developed a tendency to improve themselves analyzing their own performance points and deficiencies. They could even realize the errors within the system and contribute to its improvement as well.

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BITCOIN: LEGAL DEFINITION AND ITS PLACE IN LEGAL FRAMEWORK

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Abstract:

Present paper explains role of the Bitcoin and its involvement in economic activity worldwide, using practical examples of real business models, reflects the modern views of legislators and judicial bodies on local (selective countries legislation and court practice) and international level (European Union legislation and international court practice), which are formed after Bitcoin's fast widespread in 2012. Current research examines in details various definition of the Bitcoin, used by legislators to place Bitcoin in already existing legal frames – virtual money, property, commodity or financial instruments, which has significant importance to legislators worldwide to regulate business activity related to Bitcoin: licensing of institutions issuing Bitcoin, if it is defined as virtual money; Bitcoin's place in stock market, if it is defined as security or financial instrument; or transfer of property rights, if Bitcoin is defined as commodity or property. Moreover this paper underlines importance of amendments acceptance, based on certain Bitcoin's definition, to prevent money laundering, financial support providing to terrorism, to straighten financial market and consumer protection procedures.

Keywords:

Bitcoin, Digital Currency, Property, Financial Instrument, Securities

1. Introduction

Discovering the official description of Bitcoin as an “innovative payment system”, everything might sound unbelievable or even to seem like a modern utopia. The Bitcoin grants not only global accessibility, high level of security, which provides fraud protection, but also simplicity in its usage in everyday life activities, such as: charity and donation proceedings, crowdfunding campaigns, intercorporate decision making, even dispute resolution and mediation procedures. More on this topic is explained in Part I of this paper.

Such virtual currency or payment system as Bitcoin is not a new idea, in the prism of virtual payment system. We can remember Flooz.com, whose usage in frauds was under the F.B.I. investigation -in the end company was closed in 2001 - more modern systems like Litecoin, Darkcoin, Peercoin, Dogecoin, Primecoinetc, which are still in usage, but their technical characteristics, centralization and exchange rate are different from Bitcoin. We shall consider that there were some attempts in doctrine to discover and analyze what is Bitcoin from legal aspect and to understand where is the place of Bitcoin in existing legal regimes and legal frames.

We can agree that Satoshi Nakamoto's idea (most probably a pseudonym of a person or group of people - recently the Australian entrepreneur Craig Wright claim that he is Satoshi Nakamoto, but such claim was taken very skeptically) of Bitcoin is itself amazing: an autonomous, decentralized payments system, a virtual currency which can be globally used for any payments in one-click. No banks, no credit unions, no lenders. The only weak point of Bitcoin is about the network of users: to proceed any payment in Bitcoins your counteragent should be able to accept this payment method. Nevertheless, nowadays the number of companies that understood all Bitcoin's preferences is developing and widening every day; Bitcoin integrates itself more and more in our everyday life. It might look like, after Bitcoin boom in 2012-2013, this topic is not under consideration of legislators and society but the situation is completely the opposite. Therefore present paper will reflect the modern views of legislators and judicial bodies on local (selective countries legislation and court practice) and international level (European Union legislation and international court practice), which are formed after Bitcoin's fast widespread in 2012. Therefore in

Part II of present paper is explained legal background of Bitcoin definition used by legislators worldwide (currency, property or security).

Besides Bitcoins' constant usage in everyday life activities like buying a coffee, having a haircut, purchasing property or booking a taxi ride, which are explained in Part I, Bitcoin is also used in DarkNet, money laundering or terroristic attacks. For example in April 2012 the F.B.I. published a report underlining the absence of a legal regulation on Bitcoin, the absence of a certain centralized base or controlling authority which can be part of financial market, the absence of special software to detect money laundering schemes via Bitcoin, the difficulties to identify the real source of funds exchanged for Bitcoins, proceeding of Bitcoin trade through third parties based all around the world, that makes Bitcoin an attractive instrument for criminal activities, like reported illegal drugs purchase through Silk Road online platform in 2011 using Bitcoin, or usage of first malware "Infostealer.Coinbit" designed to steal Bitcoins in same year.

In Russia, for example, government is considering to forbid and to penalize Bitcoin usage, which is considered as "money surrogate" according to suggested amendments to Russian legislation, and therefore it falls under provisions about money regulation and financial market, in the territory of Russian Federation for last 2 years, but still such law (including as punishment deprivation of liberty up to 4 years and for persons on high managing position up to 7 years for Bitcoin issue and distribution) is just in consideration.

In the same time the European Union underlines the importance of putting the Bitcoin under anti-money laundering and counter terrorism regulation not just on Union level (Anti-Money Laundering Directive and Payment Services Directive) but also in national legislation of member states, and proposes to apply a licensing to the Bitcoin exchange platforms. Moreover, according to the Europol's information, Bitcoin is mostly used as a single common currency by cybercriminals within territory of the European Union. Therefore in Part III are explained main aspects of legal regulations on anti-money laundering and counter terrorism considering Bitcoin's usage.

Therefore, as we can see, firstly, to provide any legal regulations and to penalize Bitcoin's usage in money laundering and terrorism, the global definition of Bitcoin should be accepted.

Considering mentioned above and the recent development of terrorism in Western Europe and in the rest of the World, providing to the Bitcoin a certain status and defining Bitcoin's place in national and international legal framework is important to make a more effective system of anti-terroristic control and money laundering prevention.

2. Bitcoin and its Involvement in Multinational and National Trade

In the modern World the new technologies are becoming more and more integrated in our lives: almost every person has a phone, or a PC, or a tablet, or each of them. Therefore many transactions are made in few seconds and few clicks on the Internet surface and sometimes with usage of unconventional currencies such as Bitcoin.

Nowadays many multinational corporations and media "giants" like Microsoft¹, Time Inc.², Taz³, Dell⁴ declared their use of the Bitcoin system.

In the modern World having a Bitcoin wallet means no need of a bank account - anyone can proceed in any place on the Earth, using just a computer, actions as:

¹ https://commerce.microsoft.com/PaymentHub/Help/Right?helppagename=CSV_BitcoinHowTo.htm, (accessed 13.10.2016);

² Press Release, Time Inc. Partners with Coinbase to Become the First Major Magazine Publisher to Accept Bitcoin Payments, Time Inc., 16.12.2014, available at: <http://www.timeinc.com/about/news/press-release/time-inc-partners-with-coinbase-to-become-the-first-major-magazine-publisher-to-accept-bitcoin-payments/>, (accessed 13.10.2016);

³ <http://www.taz.de/Unterstützung/!142454/>, (accessed 13.10.2016);

⁴ <http://www.dell.com/learn/us/en/uscorp1/campaigns/bitcoin-marketing?c=us&l=en&s=corp>, (accessed 13.10.2016);

- booking a hotel (travel agencies like Expedia, CheapAir and TravelKeys are accepting Bitcoins⁵. Expedia's vice-president, Michael Gulmann, explained that the company was "in a unique position to solve travel planning and booking for our customers and partners alike by adopting the latest payment technologies"⁶),
- purchasing a flight tickets (*AirBaltic*, air company with headquarter in Latvia, focused on proceeding flights around Baltic countries, Scandinavia and Europe, has become the first airline in the world to accept the Bitcoin as tickets payment. Chief Executive Officer of *AirBaltic*, Martin Gauss, underlined: "*AirBaltic* has been ranked among TOP 10 most innovative airlines globally. Introducing the Bitcoin payment option is a part of our innovative approach to the service with a central focus on our customer."⁷),
- paying university tuition fees (the University of Nicosia in Cyprus announced Bitcoin acceptance as a tuition fee payment. "What we aim to explore in this program is the likely development pathway of digital currency and to give our students the insights that they can bring to bear in their professional careers."⁸ said Dr. Andreas Polemitis, Senior Vice Rector at the University of Nicosia.),
- buying a computer or any software (for example Dell is accepting Bitcoin for payment proceedings in USA, UK and Canada⁹. According to data, on February 2015 company declared their largest transaction in Bitcoins in amount exceeding \$50 000¹⁰),
- purchasing furniture, bed leanings, clothes, watches, perfumes or any retail products (such huge retailer like Overstock.com¹¹, on date of August 2014, reported Bitcoin sales over \$2 million (1% of total sales), with about \$15,000 per day, or \$300,000 per month¹², besides one of the biggest retailers in Europe, Paris based Showromprive.com¹³, or Monoprix¹⁴ also declared Bitcoin acceptance as a payment system).

Apart of the most popular Bitcoin markets like online shopping and gift cards purchase, which are easy accessible by a computer or a smartphone, nowadays different local business are trying to go with the flow and use Bitcoin system in coffee shops, restaurants, jewelry shops etc.

For example, in Prague it is very easy to find Paralelni Polis¹⁵, an espresso bar where you can have a cup of good coffee in exchange of a reasonable amount of Bitcoins. Payment proceeding is very easy: even if you do not have Bitcoin wallet, you can create it directly on the spot and exchange your currency in Bitcoin ATM to enjoy your fresh espresso¹⁶.

⁵ News report, Expedia to accept Bitcoin payments for hotel bookings, BBC, 12.06.2014, available at: <http://www.bbc.com/news/technology-27810008>, (accessed 15.10.2016);

⁶ News report, Expedia to accept Bitcoin payments for hotel bookings, BBC;

⁷ Press Release, AirBaltic - World's First Airline to Accept Bitcoin, AirBaltic, 22.07.2014, available at: <https://www.airbaltic.com/airbaltic-worlds-first-airline-to-accept-bitcoin>, (accessed 15.10.2016);

⁸ Press release, University of Nicosia in Cyprus to be the First University in the World to Accept Bitcoin: Offers Master's Degree in Digital Currency, University of Nicosia, 21.11.2013, available at: <https://www.unic.ac.cy/about-us/university-nicosia-digital-currency-initiative/press-release>, (accessed 15.10.2016);

⁹ <http://www.dell.com/learn/us/en/uscorp1/campaigns/bitcoin-marketing?c=us&l=en&s=corp>, (accessed 15.10.2016);

¹⁰ Pevehouse, Laura, (2016), We're Now Accepting Bitcoin in the UK and Canada, Dell, 19.02.2015, available at: <http://en.community.dell.com/dell-blogs/direct2dell/b/direct2dell/archive/2015/02/19/dell-now-accepting-bitcoin-in-uk-and-canada>, (accessed 15.10.2016);

¹¹ <https://www.overstock.com/bitcoin>, (accessed 15.10.2016);

¹² Chavez-Dreyfuss, Gertrude, (2016), Exclusive: Overstock CEO says bitcoin sales to add 4 cents to 2014 EPS, Reuters, 13.08.2014, available at: <http://www.reuters.com/article/us-overstock-com-bitcoin-idUSKBN0GD21220140813>, (accessed 15.10.2016);

¹³ <http://www.showroomprive.com/ContratCGV.aspx>, (accessed 15.10.2016);

¹⁴ <http://www.numerama.com/magazine/33462-monoprix-bitcoins.html>, (accessed 15.10.2016);

¹⁵ <https://www.paralelnipolis.cz/koncepty/bitcoin-coffee-en/>, (accessed 15.10.2016);

¹⁶ Nguyen, Tuan, (2014), I bought coffee at the Prague cafe that only accepts bitcoin. Here's what it was like, the Washington Post, 05.11.2014, available at: <https://www.washingtonpost.com/news/innovations/wp/2014/11/05/i-bought-coffee-at-the-prague-cafe-that-only-accepts-bitcoin-heres-what-it-was-like/>, (accessed 16.10.2016);

After Bitcoin boom, in 2014 so-called Bitcoin Boulevards, streets or areas dedicated to local business which accept Bitcoin payment became popular in the world. Similar boulevard, for example, was opened in Cleveland Heights, Ohio, USA¹⁷, but lately after the Ohio Department of Public Safety banned alcohol sale in exchange of crypto currency¹⁸, Bitcoin payments were proceeded not so often and business went down.

So far the Netherlands are considered as the most Bitcoin friendly country, the Hague was the first city where such Bitcoin Boulevard¹⁹ was opened, besides that a new Bitcoin city is on development²⁰. Moreover in the Netherlands you can simply rent a bike²¹, have a boat ride²² exploring Amsterdam channels, and have a drink²³ or even a haircut²⁴ using Bitcoins. A new Dutch startup Biccur is working on implementing an idea of part-ownership in real estate using Bitcoin system²⁵.

Bitcoin ATM network is growing every day: you can easily find Bitcoin ATM in many European capitals like London, Copenhagen, Amsterdam, Prague etc²⁶. On the current date in Denmark, the first real estate, a house in a town Mørkøvin north-western part of Denmark, worth 117 Bitcoins (over \$ 50 000)²⁷ was sold using Bitcoin via Coinify startup²⁸. In Milan the first taxi driver accepts Bitcoins for transportation services²⁹.

In Ukraine, the official banking authority, “PrivatBank”, which de facto has monopoly on financial transactions in Ukraine and, according to recent news, is on the way to its nationalization by government³⁰, since January 2016 proceeds money exchange for Bitcoins by using absence of legislation or control from National Bank of Ukraine or any other bodies³¹.

The picture of how much virtual payment system, or so-called crypto currency, integrated itself in real life becomes very global and such integration is becoming deeper with technological progress. Considering mentioned above, notwithstanding of Satoshi Nakamoto’s idea of regulation absence on Bitcoins, in reality modern government policy, local and international legislation demand such legal regulation.

¹⁷<http://bitcoinboulevard.us>, (accessed 16.10.2016);

¹⁸ Pick, Leon, (2014), Ohio Bans Alcohol Sales with Crypto on Bitcoin Boulevard, Finance Magnates, 28.04.2014, available at: <http://www.financemagnates.com/cryptocurrency/news/ohio-bans-alcohol-sales-with-crypto-on-bitcoin-boulevard/>, (accessed 16.10.2016);

¹⁹Sardesai, Neil, (2014), Bitcoin Boulevard: Bitcoin a part of everyday life in this Dutch neighborhood, Cryptocoinsnews, 03.11.2014, available at: <https://www.cryptocoinsnews.com/bitcoin-boulevard-bitcoin-part-everyday-life-dutch-neighborhood/>, (accessed 16.10.2016);

²⁰<http://www.arnhembitcoinstad.nl/#deelnemers>, (accessed 16.10.2016);

²¹<http://www.starbikesrental.com>, (accessed 16.10.2016);

²²<http://www.amsterdamboatevents.nl>, (accessed 16.10.2016);

²³<http://www.cafekobalt.nl/en/nieuws>, (accessed 16.10.2016);

²⁴<http://www.cutthroatbarber.nl>, (accessed 16.10.2016);

²⁵<http://biccur.com/blog/portfolio/blandlord-com/>, (accessed 16.10.2016);

²⁶<https://coinatmradar.com>, (accessed 16.10.2016);

²⁷ Maras, Elliot, (2016), A First In Denmark: Miner Buys House With Bitcoin Using Coinify, Cryptocoinsnews, 14.03.2016, available at: <https://www.cryptocoinsnews.com/a-first-in-denmark-miner-buys-house-with-bitcoin-using-coinify/>, (accessed 16.10.2016);

²⁸ Aitken, Roger, (2016), Danish Blockchain Startup Coinify Scores \$4 Million Early-Stage Investment, Forbes, 03.08.2016, available at: <http://www.forbes.com/sites/rogeraitken/2016/08/03/sebs-vc-unit-invests-4m-in-blockchain-payments-operator-with-seed-capital/#33e495b01ea1>, (accessed 16.10.2016);

²⁹Cavadini, Federica, (2014), Dallabistecca a palestra e taxi qui sipaga con moneta virtual, Corrieredella sera, 02.02.2014, available at: http://milano.corriere.it/milano/notizie/cronaca/14_febbraio_02/dalla-bistecca-palestra-taxi-qui-si-paga-moneta-virtuale-flab0942-8bf1-11e3-a29b-8636964bc663.shtml, (accessed 16.10.2016);

³⁰ News report, Nazionalizatsiya PrivatBanka: vse podrobnosti, Correspondent, 19.12.2016, available at: <http://korrespondent.net/ukraine/3788705-natsyonalizatsiya-pryvatbanka-vse-podrobnosti>, (accessed 06.01.2017);

³¹ Gadomskiy, Dmitriy, (2016), Early adopters: mozh et li PrivatBank rabotat s bitcoin v Ukraine i kogda NBU opredelitsa s resheniyem po kriptovalute, Forbes, 21.01.2016, available at: <http://forbes.net.ua/opinions/1409465-early-adopters-mozhet-li-privatbank-rabotat-s-bitkoin-v-ukraine>, (accessed 22.11.2016);

To summarize, I would like to underline that nowadays Bitcoin is used for:

- Purchase agreements (including real estate),
- Service provisions agreements (including transportation services),

which are legally regulated by national legislation or internationally, including:

- Tax regulations,
- Customer protection,
- Licensing,
- Anti-money laundering and counterterrorism.

3. The Meaning of Bitcoin

In present paper I will not stop on technical characteristics of Bitcoin and blockchain technology or will not try to explain how peer-to-peer network works. Detailed description on this subject can be found on official web site of Bitcoin system³² or in research papers, for example, in work of Nikolei M. Kaplanov “Nerdy Money: Bitcoin, The Private Digital Currency, And The Case Against Its Regulations”³³. Instead I would like to focus on the legal aspect of such phenomenon as a Bitcoin. Is it a currency? Is it a payment system? Maybe it can be considered as a property? Or as a type of security? Legislators in various countries were trying to answer on these questions and therefore several views on problem of Bitcoin’s definition exist. Let us have a look.

3.1. Bitcoin as a Money

Money definition by itself is changing from time to time; let us remember such ancient currencies as mina, talent or denarius, which were made from gold or other metals, using them in modern times now might seem impossible or inconvenient. Bringing with you a brick of gold to exchange for tools in modern world – who can imagine it?

Nowadays with fast technological progress and “cash-free” movements around Europe (for example in Norway cash makes just 5 % of total payments and rates in UK and Sweden are even lower³⁴, in Sweden you can even buy a newspaper sold on street by homeless people using your bankcard³⁵, Danish government is insisting for moving country to “cash-free” economy³⁶, besides Bill and Melinda Gates underline importance of digital economy for development³⁷).

Money, notwithstanding of their form, has three different functions: they work as a medium of exchange - a means of payment with a value that everyone trusts, as a unit of account allowing goods and services to be priced and as a store of such value³⁸. Money also can be considered as the cost to acquire financial resources³⁹.

³² <https://bitcoin.org>, (accessed 06.01.2017);

³³ Kaplanov, Nikolei M., (2012), Nerdy Money: Bitcoin, The Private Digital Currency, And The Case Against Its Regulations, available at: https://poseidon01.ssrn.com/delivery.php?ID=127087120097029_116079083104087007030022041017031027078099093025106009077127117007030001121005122042126107027084094099025020064046034013064088072028064087111018028100086036012092019023110091027124065109087117124127029025024069089092004106080077024084095&EXT=pdf, (accessed 06.01.2017);

³⁴ <http://www.norwaypost.no/index.php/business/general-business/29983>, (accessed 02.12.2016);

³⁵ Harrison, Virginia, (2015), This could be the first country to go cashless, CNN, 02.06.2015, available at: <http://money.cnn.com/2015/06/02/technology/cashless-society-denmark/>, (accessed 02.12.2016);

³⁶ Tange, Alexander, (2015), Denmark proposes cash-free shops to cut retail costs, Reuters, 06.05.2015, available at: <http://www.reuters.com/article/denmark-cash-idUSL5N0XX2ZQ20150506>, (accessed 02.12.2016);

³⁷ <http://www.gatesfoundation.org/Media-Center/Press-Releases/2013/09/Digital-Payments-Can-Benefit-the-Poor>, (accessed 02.12.2016);

³⁸ European Central Bank, What is money?, 24.11.2015, https://www.ecb.europa.eu/explainers/tell-me-more/html/what_is_money.en.html, (accessed 02.12.2016);

³⁹ Smithin, John N., (1994), Controversies in Monetary Economics, 1994, p. 2, 34, available at: https://books.google.com.ua/books?id=Ri_TvUojGtcC&pg=PA1&lpq=PA1&dq=What+is+Money?+John+N.+Smithin&source=bl&ots=spr7_U2gEa&sig=QDqMZUbg5HkKgPLax9u4wQ8EtN0&hl=ru&sa=X&ved=0ahUKEwjE5Y7XstXQAhVLvxQKHOpAqEQ6AEIOzAF#v=onepage&q=What%20is%20Money%3F%20John%20N.%20Smithin&f=false, (accessed 02.12.2016);

Besides electronic money can be defined as electronically (in a smart card or the computer memory), including magnetically, stored monetary value, which represents a claim on the issuer, is issued on receipt of funds for the purpose of making payment transactions, is used as a means of payment and is accepted by a natural or a legal person other than the electronic money issuer⁴⁰.

Considering mentioned above, let us have a look on specific regulations to understand if Bitcoin payment system can fall under definition of “electronic money”.

In case State of Florida vs. Michell Abner Espinoza (Case #F14-2923), the Judge Teresa Pooler underlines that Bitcoin definition does not fall under definition of “payment instrument” under federal laws of the U.S.A. and the actions of the defendant does not fall into definition of “money transmitter” because he was not charging a fee for Bitcoin transactions and “a money transmitting business transmits money from a customer and then, for a fee, paid by a customer, transmits that money to a recipient”⁴¹. The court noticed that Bitcoin might have some attributes in common with what we call “money”, but Bitcoin differs on some important aspects⁴². While Bitcoin can be exchanged for money (accepted just by some businesses), its value is uncertain and mechanism of stabilization does not exist, there is no issuing authority or reserve, therefore Bitcoin can be considered as “money”⁴³.

In the same time the Financial Crimes Enforcement Network of the United States Department of Treasury underlines that virtual currency (including Bitcoin) is a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency⁴⁴.

The Danish Assessment Board in the case of SKM2014.226.SR on 25 March 2014 relied that Bitcoin cannot be considered an official currency for tax and the V.A.T. purposes, as Bitcoin is not regulated by authorized authority in global market, not regulated by any central bank and cannot be withdrawn from circulations. Therefore, neither invoice nor tax return cannot be prepared in Bitcoin, and traditional Bitcoin trade is not considered as financial contract for tax purposes according to the Danish law⁴⁵. Moreover the Danish Central Bank on March 2014 declared that “Bitcoin does not have any real trading value compared to gold and silver, and thus is more similar to glass beads”, besides Bitcoins are not protected by any national laws or guarantees, such as a deposit guarantee⁴⁶.

In 2013 the People’s Bank of China issued a notice prohibiting financial institutions from concluding contracts in Bitcoins, as by its nature Bitcoin is not a currency and should not be circulated and used in the market as a currency in order to “protect the status of the statutory currency, prevent risks of money laundering, and protect financial stability”⁴⁷. Nevertheless on current date China takes first place from the most widespread Bitcoin markets all around

⁴⁰ E-Money Directive, 2009/110/EC, 16.09.2009, available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0110&from=EN>, (accessed 02.12.2016); Law on Payment Services and Electronic Money, available at: http://www.fktk.lv/texts_files/0_Law_Payment_Services_Electronic_Money.pdf, (accessed 02.12.2016); Electronic money rules of commerce, Appendix 1, available at: <https://www.occ.gov/topics/bank-operations/bit/intro-to-electronic-money-issues-appendix.pdf>, (accessed 02.12.2016); Ödeme ve Menkul Kıymet Mutabakat Sistemleri, Ödeme Hizmetleri ve Elektronik Para Kuruluşları Hakkında Kanun No. 6493, 20.06.2013, (R.G. 27.06.2013/28690), available at: <http://www.resmigazete.gov.tr/eskiler/2013/06/20130627-14.htm>, (accessed 02.12.2016);

⁴¹State of Florida vs. Michell Abner Espinoza, Case # F14-2923, 22.07.2016, available at: [http://www.miamiherald.com/latest-news/article91701087.ece/BINARY/Read%20the%20ruling%20\(PDF\)](http://www.miamiherald.com/latest-news/article91701087.ece/BINARY/Read%20the%20ruling%20(PDF)), (accessed 20.10.2016);

⁴²State of Florida vs. Michell Abner Espinoza, Case # F14-2923;

⁴³State of Florida vs. Michell Abner Espinoza, Case # F14-2923;

⁴⁴ Financial Crimes Enforcement Network of the United States Department of Treasury, Request for Administrative Ruling on the Application of FinCEN’s Regulations to a Virtual Currency Payment System, 27.10.2014, available at: <https://www.fincen.gov/sites/default/files/shared/FIN-2014-R012.pdf>, (accessed 18.12.2016);

⁴⁵Skatterrådet #SKM2014.226.SR, 25.03.2014, available at: <http://www.skat.dk/skat.aspx?oId=2156173&vId=0>, (accessed 20.10.2016);

⁴⁶Press Release, Danish Central Bank (Nationalbanken), Bitcoin erikkepenge, 18.03.2014, available at: http://www.nationalbanken.dk/da/presse/Documents/2014/03/PH_bitcoin.pdf#search=Bitcoin, (accessed 23.10.2016);

⁴⁷Mullany, Gerry, (2013), China Restricts Banks’ Use of Bitcoin, The New York Times, 05.12.2013, available at: <http://www.nytimes.com/2013/12/06/business/international/china-bars-banks-from-usingbitcoin.html>, (accessed 23.10.2016);

the world. For example according to an analysis performed for The New York Times by [Chainalysis](#), Chinese exchanges have accounted for 42 percent of all Bitcoin transactions for 2016 year⁴⁸.

Central Bank of Brazil on 09 October 2013 issued law No. 12,865 basically legalized the possibility of electronic money (resources stored in device or electronic system that allow the final user to perform a payment transaction) usage, including Bitcoins, in national money transferring system⁴⁹. According to mentioned above Bitcoin considered as currency in Brazil.

German Federal Financial Supervisory Agency classified Bitcoins as “digital currencies” units of account in the sense of the German Banking, therefore Bitcoin operators established in Germany or those, who serve German customers are obliged to obtain a license from the German Federal Financial Supervisory Agency under the German law⁵⁰.

According to the new proposed amendments to Russian legislation and its Federal Law “On money surrogates”, the Bitcoin is considered as a money surrogate, falls under provisions of Russian legislation about money emission and therefore all Bitcoins emission on the Russian territory should be made just by licensed financial authority or punished by law⁵¹. Whereas how Russian authorities will define in the scope of Internet surface where certain Bitcoin was issued, or de facto coded, is not specified in mentioned law.

In Turkey, according to Law on Payment and Securities Reconciliation Systems, Payment Services, and Electronic Money Institutions #6493, Bitcoin is not falling within the scope of “electronic money” definition⁵². Despite absence of regulation, the platform BTCTurk, which provides Turkish Lira-Bitcoin exchange⁵³, successfully provides its services, but recently accounts of BTCTurk have been stopped, according to information reported by [Webrazzi.com](#)⁵⁴, Turkish information platform on web innovations and Bitcoin news.

Considering that the legislation of the European Union is trying to define Bitcoin status, first we need to mention Virtual Currency Schemes, issued by European Central Bank in 2012, in which stated Bitcoin cannot be defined as “electronic money” according to Electronic Money Directive (2009/110/EC)⁵⁵, because in this context electronic money is just a different form of traditional money, but with Bitcoin system traditional money are exchanging for Bitcoins⁵⁶.

According to Virtual Currency Schemes – a further analysis issued by European Central Bank in 2015, such virtual currencies like Bitcoin obtained ad-hoc definition as “a digital representation of value, not issued by a central bank, credit institution or e-money institution, which in some circumstances can be used as an alternative to money”⁵⁷.

⁴⁸ Popper, Nathaniel, (2016), How China Took Center Stage in Bitcoin’s Civil War, The New York Times, 29.06.2016, available at: <http://www.nytimes.com/2016/07/03/business/dealbook/bitcoin-china.html>, (accessed 23.10.2016);

⁴⁹ Central Bank of Brazil, Law No. 12,865, 09.10.2013, available at: <https://www.bcb.gov.br/Pom/Spb/Ing/InstitucionalAspects/Law12865.pdf>, (accessed 23.10.2016);

⁵⁰ Boehm, Franziska and Pesch, Paulina, Bitcoin: A First Legal Analysis - with reference to German and US-American law, available at: http://www.uni-muenster.de/Jura.itm/hoeren/materialien/boehm_pesch/BTC_final_camready.pdf, (accessed 23.10.2016);

⁵¹ Proekt Federalnogo Zakona “O denezhnih surrogatah”;

⁵² Ödeme ve Menkul Kıymet Mutabakat Sistemleri Hakkında Kanun. № # 6493;

⁵³ <https://www.btcturk.com>, (accessed 24.10.2016);

⁵⁴ Kara, Merve, (2016), BTCTurk, TL yatırma işlemlerini durdurdu, [Webrazzi](#), 18.08.2016, available at: <http://webrazzi.com/2016/08/18/hacklendi-iddia-edilen-btcturk-til-yatirma-islemlerini-durdurdu/>, (accessed 24.10.2016);

⁵⁵ Electronic Money Directive, 2009/110/EC;

⁵⁶ European Central Bank, Virtual Currency Schemes, 2012, available at: <http://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf>, (accessed 24.10.2016);

⁵⁷ European Central Bank, Virtual Currency Schemes- a further analysis, 2015, available at: <https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemesen.pdf> (accessed 15.12.2016); Scheinert, Christian, (2015), Virtual currencies, Challenges following their introduction, available at: [http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/579110/EPRS_BRI\(2016\)579110_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/579110/EPRS_BRI(2016)579110_EN.pdf), (accessed 15.12.2016);

Besides case C-264/14, which was ruled in the Court of Justice, is worth to mention for our purposes. According to fabula of present case, Mr Hedqvist, Swedish national, carried out electronic transactions via his company's website; that company purchased Bitcoins directly from private individuals and companies, or from an international exchange site and then resold Bitcoins to private individuals or to companies on such an exchange site, or just stored them⁵⁸. In this situation, the Supreme Administrative Court of Sweden applied to the Court of Justice with a request for preliminary ruling asking if such transaction with Bitcoins should be a subject on the Value Added Tax.

The Court of Justice underlined that, according to mentioned above Virtual Currency Schemes by European Central Bank, Bitcoin was explained as virtual currency used, principally, for payments made between private individuals via the internet and in certain online shops that accept Bitcoins⁵⁹. Such virtual currency as Bitcoin does not have a single issuer and instead is created directly in a network by a special algorithm, such system allows anonymous ownership and the transfer of Bitcoin amounts within the network by users who have Bitcoin addresses or so called "Bitcoin wallets", which may be compared to a bank account number⁶⁰.

The Court of Justice in this case states that a virtual currency can be defined as a type of unregulated, digital money, which is issued and controlled by its developers and accepted by members of a specific virtual community⁶¹. The "Bitcoin" virtual currency is one of the virtual currency schemes with "bidirectional flow", which users can purchase and sell on the basis of an exchange rate and are analogous to other convertible currencies as regards their use in the real world; they allow both real and virtual goods and services to be purchased⁶². Virtual currencies differ from electronic money within the scope of Directive 2009/110/EC⁶³, in so far as, unlike that money, for virtual currencies the funds are not expressed in traditional accounting units, such as in Euro, but in virtual accounting units, such as the Bitcoin.

Besides within the scope of C-264/14 case the Advocate General has observed that virtual currency has no purpose other than to be a means of payment and the Court of Justice mentioned that Bitcoin transaction are considered as supply of services not goods, Bitcoin can be considered as non-traditional currency on which both parties of such transaction agreed, therefore Bitcoin transactions can be called exempted from V.A.T. financial transactions⁶⁴. Considering mentioned above worldwide accepted definitions and specific characteristics of money and electronic money particularly:

- a medium of exchange with a value that everyone trusts (Notwithstanding on widening of Bitcoin's application in specific areas, still its usage is very limited, therefore even though Bitcoin can be a medium of exchange but still cannot be considered as a value that everyone trusts. That is why Bitcoin's characteristics do not fall under this feature of money.);
- a unit of account allowing goods and services to be priced and as a store of such value (Whereas, as it was shown in Part I, some businesses around the globe do price their services in Bitcoins, therefore Bitcoin's characteristics do fall under this feature of money.);
- the cost to acquire financial resources (Whereas Bitcoin can be exchanged for other kind of currency, deposited or stored, therefore Bitcoin's characteristics do fall under this feature of money.);
- electronically (in a smart card or the computer memory), including magnetically, stored monetary value (Whereas Bitcoin stored just electronically (on computer or flash drive using electronic encryption) and does not have any other form, therefore Bitcoin's characteristics do fall under this feature of electronic money.);

⁵⁸ the Court of Justice, C-264/14, 22.10.2015, available at: <http://curia.europa.eu/juris/document/document.jsf?jsessionid=9ea7d2dc30d5a4270d3ebee146d391c3cd2b45e5f395.e34KaxiLc3qMb40Rch0SaxyKb3j0?text=&docid=170305&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=1761157>, (accessed 23.11.2016);

⁵⁹ the Court of Justice, C-264/14;

⁶⁰ the Court of Justice, C-264/14;

⁶¹ the Court of Justice, C-264/14;

⁶² the Court of Justice, C-264/14;

⁶³ Electronic Money Directive, 2009/110/EC;

⁶⁴ the Court of Justice, C-264/14;

- represents a claim on the issuer (Whereas Bitcoin basically does not have common issuer or any controlling body, Bitcoin transactions work as peer-to-peer network, but as services or goods can be purchased with Bitcoin and Bitcoin ATM system helps to make further exchange easier, therefore Bitcoin's characteristics do not fall under this feature of electronic money.);
- issued on receipt of funds for the purpose of making payment transactions (Whereas to obtain Bitcoin common used currencies are involved and Bitcoin is exchangeable for goods and services, therefore Bitcoin's characteristics do fall under this feature of electronic money.);
- accepted by a natural or a legal person other than the electronic money issuer (Whereas, as mentioned in Part I, Bitcoin is accepted by limited network of legal entities and also can be accepted by natural person, therefore Bitcoin's characteristics do fall under this feature of electronic money.)

Considering mentioned above, on present stage of limited Bitcoin's acceptance by businesses and population, Bitcoin's characteristics does not totally fall under all electronic money features. In case when certain countries legislation took Bitcoin under electronic money framework, contracts including Bitcoins should be considered as contracts including other type of payment (like foreign currency, which is not used commonly as national means of payment in such state) and should be regulated subsequently.

3.2. Bitcoin as a Property

According to Blackstone's famous statement – property is that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe⁶⁵.

In doctrine in many cases property rights are considered as decision rights (right to hold, lend, sell, permit to use etc) over some objects or assets, which provide right to take certain action (rights to access) and right to prevent others from certain actions (right to exclude), including same right to access and right to exclude over income or profit obtained from mentioned above asset or object⁶⁶. Property rights are not considered as physical object or event but are abstract social relations⁶⁷.

Looking at mentioned definitions in prism of Bitcoin essence, Bitcoin can be accepted as such object or asset (even though Bitcoin is stored as file on computer, sever or flash drive), over which concrete real or legal person can have property rights: right to permit access (to sell, to give as present Bitcoins to other real or legal person) or right to exclude (Bitcoin is encrypted and without personal encryption key of owner it is almost not possible to copy or to use Bitcoin by real person or legal entity other than owner).

⁶⁵ Malloy, Robin Paul and Diamond, Michael, (2011), 'The Public nature of Private property, p. 47, available at: [https://books.google.com.ua/books?id=LhqcCwAAQBAJ&pg=PA47&lpq=PA47&dq=J.W.+EHLRICH,+ERLICH%27S+BLACKSTONE+113+\(1959\).&source=bl&ots=wGJMNvE4_I&sig=kPHmLa-prZRPURI9Rb azOXyB1iw&hl=ru&sa=X&ved=0ahUKEwjPqs2SlPbQAhWBPxQKHUhUCi4Q6AEIHTAA#v=onepage&q=J.W.%20EHLRICH%2C%20ERLICH'S%20BLACKSTONE%20113%20\(1959\).&f=false](https://books.google.com.ua/books?id=LhqcCwAAQBAJ&pg=PA47&lpq=PA47&dq=J.W.+EHLRICH,+ERLICH%27S+BLACKSTONE+113+(1959).&source=bl&ots=wGJMNvE4_I&sig=kPHmLa-prZRPURI9Rb azOXyB1iw&hl=ru&sa=X&ved=0ahUKEwjPqs2SlPbQAhWBPxQKHUhUCi4Q6AEIHTAA#v=onepage&q=J.W.%20EHLRICH%2C%20ERLICH'S%20BLACKSTONE%20113%20(1959).&f=false), (accessed 15.12.2016);

⁶⁶ Segal, Ilya and Whinston, Michael D., (2010), Property Rights, Stanford University, 07.08.2010, available at: <http://web.stanford.edu/~isegal/prights.pdf> (accessed 17.12.2016); Grossman, S.J. and Hart, O.D., (1994), The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration, Journal of Political Economy 94, p. 691;

⁶⁷ Pejovich, Svetozar, (1990), The Economics of Property Rights: Towards a Theory of Comparative Systems, p. 27, available at: https://books.google.com.ua/books?id=MUfIr6kBXAQC&pg=PA27&lpq=PA27&dq=property+rights+definition&source=bl&ots=gq5D_Kelj5&sig=Yshvmv-COOJ59ZYzi8k7yiZmx 1o&hl=ru&sa=X&ved=0ahUKEwjQqOSM7_vQAhVGuhQKHSitBeU4ChDoAQhMMAc#v=onepage&q=property%20rights%20definition&f=false, (accessed 17.12.2016);

Whether Bitcoin can be an object of property rights or not should be decided by legislators. For example in some countries object of property rights can be just tangible things and in others intangible things like idea or energy also recognized as property rights' object⁶⁸.

For example, the Internal Revenue Service in the U.S.A. in its Notice #2014-21 stressed out that Bitcoin In some businesses can function like currency but it does not have legal status in any jurisdiction. It can be considered as asset same like stocks, bonds, shares in property. "The sale or exchange of convertible virtual currency, or the use of convertible virtual currency to pay for goods or services in a real-world economy transaction, has tax consequences that may result in a tax liability. For tax purposes in the U.S.A., virtual currency should be treated as property. General tax principles applicable to property transactions apply to transactions using virtual currency"⁶⁹.

Besides, in the same U.S.A. Bankruptcy court of the Northern District of California, hearing case on bankruptcy of Bitcoin mining firm HashFast's trustee (HashFast Technologies L.L.C and HashFast L.L.C v. Marc A. Lowe, Case No. 14-30725DM), declared that Bitcoins are not U.S. dollars and should be considered as intangible property or commodity for bankruptcy procedures⁷⁰.

One of the arguments, pro Bitcoin's consideration as property, is the constant change of the Bitcoin's money equivalent, for example on the date of 06.01.2017 Bitcoin's price was equal 1026,08 U.S. dollars, on date of 18.12.2016 equal 789,83 U.S. dollars, on the date of 26.11.2016 it was equal 753,40 U.S. dollars⁷¹, one year ago on the date of 20.12.2015 it was equal 457,53 U.S. dollars, two years ago on the date of 17.12.2014 it was equal 331,92 U.S. dollars, on 30.11.2013 one Bitcoin was equal 1108,80 U.S. dollars⁷² and in June 2011 Bitcoin price fall to 2 U.S. dollars⁷³.

In the above mentioned bankruptcy case No. 14-30725DM the judge underlined, that for purposes of section 550(a) of the Bankruptcy Code (the U.S.A. legislation) the 3,000 Bitcoin transferred constitute a commodity, not currency, and if the subject transfers are avoided the estate is entitled to either the Bitcoin or the value of the Bitcoin as of the transfer date or time of recover, whichever is greater⁷⁴. It means that under the court ruling the defendant is obliged compensate the value of Bitcoins on the date of hearing not on the date when he purchased them in 2013.

Generally term "commodity" is used (mostly in the U.S.A. legislation) in trade agreements to define tangible things which move in commerce and commit governmental measures (like quotas, rates of duty etc); in most cases term

⁶⁸Mattei, Ugo, (2000), Basic Principles of Property Law: A Comparative Legal and Economic Introduction, p. 75, available at: https://books.google.com.ua/books?id=l4dD7X_5YIQC&pg=PA75&dq=property+right+object&source=bl&ots=aRynb3cUD_&sig=VCmKFxl7B-_MEFyiGN42oLBaVNng&hl=ru&sa=X&ved=0ahUKEwiP6_qHoP3QAhWKIcAKHQITDjEQ6AEIGzAA#v=onepage&q=property%20right%20object&f=false, (accessed 18.12.2016);

⁶⁹ The Internal Revenue Service of the U.S.A., Notice #2014-21, available at: <https://www.irs.gov/pub/irs-drop/n-14-21.pdf>, (accessed 20.10.2016);

⁷⁰Reingold, Steven C. and Durken, Timothy J., Bitcoins are not U.S. Dollars: What Does the Ruling in the HashFast Bankruptcy Mean?, available at: <http://www.jagersmith.com/downloads/pdf/Bitcoins-Are-Not-US-Dollars.pdf>, (accessed 18.12.2016);

⁷¹<http://www.coindesk.com/price/>, (accessed 06.01.2017);

⁷²<https://www.coinbase.com/charts>, (accessed 18.12.2016);

⁷³ Malone, J. Anthony, (2014), Bitcoin and Other Virtual Currencies for the 21st Century, 2014, p. 7, available at: https://books.google.com.ua/books?id=_EtXCAAAQBAJ&pg=RA1-PR58&lpg=RA1PR58&dq=guidance+on+the+application+of+FinCEN+regulations+to+transactions+in+virtual+currencies&source=bl&ots=Z642cGNMik&sig=5Uc94IuAL0qWuBwZ40xhFBDEg1A&hl=ru&sa=X&ved=0ahUKEwi987eLif7QAhWEWBQKHTTrAawQ6AEIRDAF#v=onepage&q=guidance%20on%20the%20application%20of%20FinCEN%20regulations%20to%20transactions%20in%20virtual%20currencies&f=false, (accessed 18.12.2016);

⁷⁴ News Report, California Bankruptcy Court To Decide Whether Bitcoin Is A Currency Or Commodity, EconoTimes, 10.02.2016, available at: <http://www.econotimes.com/California-Bankruptcy-Court-To-Decide-Whether-Bitcoin-Is-A-Currency-Or-Commodity-158333>, (accessed 18.12.2016); Higgins, Stan, US Bankruptcy Court Set to Weigh in on Bitcoin's Currency Status, CoinDesk, 09.02.2016, <http://www.coindesk.com/bankrupt-bitcoin-mining-firm-trustee-seeks-return-of-funds-from-former-promoter/>, (accessed 18.12.2016);

“commodity” can be interchangeable with “asset”, “articles”, “goods”, “products”⁷⁵. As Bitcoin is intangible object and for now most of governments do not apply any quotas or rates for Bitcoin transactions such term cannot be used in most cases to define its status, but the same as commodity Bitcoin is an object for trade agreements and can move freely in commerce.

Not just American regulating and judicial bodies stress out Bitcoin’s belonging to property objects, according to the Principle Statement of Norwegian Tax Authority, Bitcoins are treated as capital property for tax-related purposes⁷⁶. Hans Christian Holte, director general of taxation in Norway, says “Bitcoins don’t fall under the usual definition of money or currency”⁷⁷.

In the same way, recently stepped on the way to cash-free economy Denmark⁷⁸- Denmark’s Ministry of Finance has come up with an idea to allow certain businesses (it will be limited to gas stations, clothing stores, and restaurants) to turn away customers who cannot pay electronically⁷⁹ - using Bitcoin on same level with electronic payments can become beneficial. As mentioned in previous chapter of present paper, in Denmark Bitcoin is not considered as currency and Bitcoin involving transactions are officially tax free.

The Australian Taxation Office in its guidance on 18 December 2014 stated that Bitcoin is neither money, nor a foreign currency, however it is an asset. Therefore transactions with Bitcoins are considered as barter agreement⁸⁰. Besides, can be also found some views that Bitcoin, especially its private key, should be considered as intellectual property⁸¹, in this case authors stress out that operations with Bitcoins are less like transfer of property but more like operations with assignment of rights to receive any benefits associated with Bitcoin’s ownership⁸².

Therefore in attempts to qualify Bitcoin’s status in legal framework, many countries come to conclusion that Bitcoin cannot be considered as money, some legislators went further and defined Bitcoin as a property and Bitcoin involving operation as barter agreements (transferring certain amount of Bitcoins to someone’s property in exchange for transfer certain amount of property rights for other object or services).

3.2. Bitcoin as a Security

Besides two main views on Bitcoin’s place in legal system: as money and as property, there is one more view – to consider it as a security.

⁷⁵ Walker, Herman, The International Law of Commodity Agreements, Duke University, available at: <http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=2960&context=lcp>, (accessed 18.12.2016);

⁷⁶ <http://www.skatteetaten.no/no/Radgiver/Rettskilder/Uttalelser/Prinsipputtalelser/Bruk-av-bitcoins--skatte--og-avgiftsmessige-konsekvenser/>, (accessed 23.10.2016);

⁷⁷ Webb, Sam, (2013), 'Bitcoin isn't real money': Norwegian government refuses to recognize digital currency, Dailymail, 16.12.2013, available at: <http://www.dailymail.co.uk/sciencetech/article-2524672/Bitcoin-isnt-real-money-Norwegian-government-refuses-recognise-digital-currency.html>, (accessed 23.10.2016);

⁷⁸ Russell, Helen, (2015), No wallet, no worries: Denmark considering cash-free shops, the Guardian, 14.05.2015, available at: <https://www.theguardian.com/world/2015/may/14/no-wallet-no-worries-denmark-considering-cash-free-shops>, (accessed 18.12.2016);

⁷⁹ Hannestad, Adam, (2014), Bitcoin-gevinster kanstikkes direct eilommen, Politiken, 25.03.2014, available at: <http://politiken.dk/oekonomi/dkoekonomi/article5508292.ece>, (accessed 18.12.2016);

⁸⁰ Guidance, the Australian Taxation Office, 18.12.2014, available at: <https://www.ato.gov.au/General/Gen/Tax-treatment-of-crypto-currencies-in-Australia---specifically-bitcoin/>, (accessed 23.10.2016);

⁸¹ Brito, Jerry, (2005), The Law of Bitcoin, p.34, available at: https://books.google.com.ua/books?id=YVQjCgAAQBAJ&pg=PT6&lpq=PT6&dq=bitcoin+private+key+intellectual+property&source=bl&ots=PewWxrudVH&sig=2d_Y9HB0g-7_U2PDBNdLRJbut1c&hl=ru&sa=X&ved=0ahUKewiUpM-C1P7QAhUCP_xQKHRGdCKkQ6AEINTAD#v=onepage&q=bitcoin%20private%20key%20intellectual%20property&f=false, (accessed 19.12.2016);

⁸² Berta, Michael A. and Noonan, Willow W., (2015), The property-contract duality of Bitcoin, Financeworldwide, available at: https://www.financierworldwide.com/the-property-contract-duality-of-bitcoin/#.WFb1ZnSg_IU, (accessed 19.12.2016);

Generally security can be defined as financial instrument or interest⁸³, can be in shape of note, stock, treasury stock, security future, bond, debenture, evidence of indebtedness, certificate of interest or participation of any profit-sharing agreement, investment contract, certificate of deposit for a security⁸⁴.

In the European Union securities defined as financial instruments and this term is used in the European legislation⁸⁵, according to the Hague Securities Convention “securities” means any shares, bonds or other financial instruments or financial assets (other than cash), or any interest therein⁸⁶. According to legislation of the United Kingdom securities were first defined in 2000 and considered as forms of investment the issuing and trading of which, as “regulated activities”, must be conducted by an authorized person or by an exempted person⁸⁷.

As mentioned in Part I certain businesses use Bitcoins as means of payment and in some part as investment actives. We can remember that after Visa, MasterCard, Bank of America, and PayPal stopped providing donations to WikiLeaks, the web site claimed using Bitcoin as donations⁸⁸. Moreover there were several attempts to create platforms for Bitcoin trading, like Bitcoinica, which provides contract-for-difference trading against the Bitcoin/U.S.D. exchange rate⁸⁹.

Besides many people accept Bitcoin not just as instrument of investment but also as an investment by itself, especially considering Bitcoin’s always changing value⁹⁰. A research note from the Bank of America suggested an idea that one day Bitcoin takes a 10 percent share of money transfers and e-commerce transactions⁹¹. In Poland some members of Parliament follow view that if derivatives (such as options or futures) were created based on Bitcoin’s value, they would have a status of financial instruments⁹². The Austrian Financial Market Authority shares opposite view on Bitcoin’s status and underlines that Bitcoin cannot be considered as financial instrument in any case⁹³.

Considering the role of Bitcoin in investment activity, its involvement in future contracts, in particular cases Bitcoin can be accepted as security.

For example the U.S. Securities and Exchange Commission charged a man from Texas and its company for defrauding investors in a Ponzi scheme (an investment scam that involves the payment of purported returns to existing investors from funds contributed by new investors⁹⁴) involving Bitcoins; in mentioned case Bitcoin is

⁸³Kaplanov, Nikolei M., Nerdy Money: Bitcoin, The Private Digital Currency, And The Case Against Its Regulations;

⁸⁴ The Securities Act of the U.S.A. of 1933, available at: <https://www.sec.gov/about/laws/sa33.pdf>, (accessed 20.12.2016);

⁸⁵ Directive 2004/39/EC of 21 Apr 2004 (MiFiD) OJ 2004 L 145/1, Annex I, available at: <http://www.fond-fci.ro/en/docs/Directive-39-2004-EN.pdf>, (accessed 20.12.2016);

⁸⁶ 36. Convention On The Law Applicable To Certain Rights In Respect Of Securities Held With An Intermediary, 05.07.2006, available at: <https://assets.hcch.net/docs/3afb8418-7eb7-4a0c-af85-c4f35995bb8a.pdf>, (accessed 20.12.2016)

⁸⁷ Castellano, Giuliano G., (2012), Towards a General Framework for a Common Definition of “Securities”: Financial Markets Regulation in Multilingual Contexts, p.19, available at: <https://www.lse.ac.uk/collections/law/staff/publications/fulltext/castellano/Offprint-Castellano-2012-3.pdf>, (accessed 21.12.2016);

⁸⁸ Greenberg, Andy, (2011), WikiLeaks Asks For Anonymous Bitcoin Donations, Forbes, 14.07.2011, available at: <http://www.forbes.com/sites/andygreenberg/2011/06/14/wikileaks-asks-for-anonymous-bitcoindonations/>, (accessed 17.12.2016);

⁸⁹ Brito, Jerry et al., (2014), Bitcoin Financial Regulation: Securities, Derivatives, Prediction Markets, And Gambling, available at: <https://poseidon01.ssrn.com/delivery.php?ID=69700112712607412712611507812008007410302403604408600310007510212512408902312508802911003205302210904900312000506609610906811611608309402208612507211117116027104060017067021020094115113105024004070093023023092120030005088005111120079073117065120009&EXT=pdf>, (accessed 20.12.2016);

⁹⁰ Brito, Jerry et al., (2014), Bitcoin Financial Regulation: Securities, Derivatives, Prediction Markets, And Gambling;

⁹¹ Woo, David et al., (2013), Bitcoin: A First Assessment, 05.12.2013, available at: <https://ciphrex.com/archive/bofa-bitcoin.pdf>, (accessed 20.12.2016);

⁹² Pick, Leon, (2014), Poland: Bitcoin derivatives are financial instruments, Bitcoin isn’t currency, Financemagnates, 09.07.2014, available at: <http://www.financemagnates.com/cryptocurrency/news/poland-bitcoin-derivatives-are-financial-instruments-bitcoin-isnt-currency/>, (accessed 20.12.2016);

⁹³ <https://www.fma.gv.at/fma-themenfokussse/bitcoin/>, (accessed 20.12.2016);

⁹⁴ The U.S. Securities and Exchange Commission, Investor Alert, No. 153 (7/13), available at: https://www.sec.gov/investor/alerts/ia_virtualcurrencies.pdf, (accessed 18.12.2016);

considered as security by the U.S. Securities and the Exchange Commission and is a subject of licensing requirements⁹⁵.

Further on request of the US Securities and Exchange Commission on mentioned case (Ponzi scheme case - U.S. v. Shavers, case # 15-cr-00157) a federal judge ruled that Bitcoin fits definition of security under the Security Exchange Act (the U.S. legislation)⁹⁶. According to the final judgment on this case, following information provided by the U.S. Attorney's Office of the Southern District of New York, the defendant was sentenced to 18 months in prison for one count of securities fraud stemming from his involvement in a Bitcoin-related Ponzi scheme⁹⁷.

Moreover The New York Stock Exchange have launched a Bitcoin price index since 2015: the new index tracks the price of one Bitcoin in U.S. dollars by looking at transactions processed through various Bitcoin exchanges⁹⁸.

In most cases security represents a legal ownership interest like, for example, a share in corporation, nevertheless Bitcoin does not represent such interest. Whereas Bitcoin's role in financial instrument's market is limited to future contracts and investment activity, Bitcoin cannot be fully considered as security.

Considered mentioned above, we can underline, many legislators even inside the European Union, connected with same money market, treat Bitcoin in different way and there is no common view or common legal status for Bitcoin in the World. The picture of legislation on Bitcoin can be described with different points: some legislators states, Bitcoin cannot be considered as money or electronic money, other countries go further and consider Bitcoin as property, few legislators accept Bitcoin as virtual currency, some did not provide any legal status to it and in doctrine there are few views that Bitcoin can be considered as intellectual property. Just in the U.S.A. different regulators put Bitcoin under property, currency and security regulation schemes.

I can make conclusion systemizing the most common points in worldwide legislation– the best option is to consider Bitcoin as a property, whose monetary value can change, therefore operations with Bitcoins are barter agreements and Bitcoin purchases should fall under legislation (including taxation) about barter agreements.

4. International Legislation on Bitcoin Concerning Money Laundering and Bitcoin's Involvement in Terrorism

Considering Bitcoin's nature: its independence from controlling authority, tax free status, anonymity and simplicity of transactions with Bitcoins, - it is not surprising that in some cases Bitcoin is considered as instrument for such activity as money laundering or terrorism.

Therefore Bitcoin attracted attention of such international agencies like Europol or Interpol, numerous educational seminars, conferences briefings on Bitcoin's subject are organized all around the World. For example in 2015 the Virtual Currencies Conference was organized by Europol's European Cybercrime Centre (E.C.3) and the U.S. I.C.E. Homeland Security Investigations (H.S.I.) for the second time and held at Europol's Headquarters in the

⁹⁵ Press Release, SEC Charges Texas Man With Running Bitcoin-Denominated Ponzi Scheme, 23.07.2013, available at: <https://www.sec.gov/News/PressRelease/Detail/PressRelease/1370539730583>, (accessed 18.12.2016); The U.S. SEC, Investor Alert;

⁹⁶ Malone, J. Anthony, Bitcoin and Other Virtual Currencies for the 21st Century;

⁹⁷ Press Release, Texas Man Sentenced For Operating Bitcoin Ponzi Scheme, Department of Justice, the U.S. Attorney's Office, Southern District of New York, 21.07.2016, available at: <https://www.justice.gov/usao-sdny/pr/texas-man-sentenced-operating-bitcoin-ponzi-scheme>, (accessed 18.12.2016);

⁹⁸ Hackett, Robert, (2015), New York Stock Exchange Gives Bitcoin Some Mainstream Love, Time, 19.05.2015, available at: <http://time.com/3889775/new-york-stock-exchange-gives-bitcoin-some-mainstream-love/>, (accessed 18.12.2016);

Hague with a view to further strengthening the international cooperation and operational focus against the abuse of virtual currencies, such as Bitcoin, for criminal transactions and money laundering⁹⁹.

In 2016 Europol, Interpol and the Basel Institute on Governance established partnership to create a working group on money laundering with digital currencies to benefit from the exchange of information and knowledge with peers from other jurisdictions¹⁰⁰.

After attack in Paris and Brussels, the European Union bodies raised their concern about virtual currencies' involvement in terrorism, as according to investigations, mentioned terroristic attack was financed anonymously via payments made online or pre-paid cards¹⁰¹.

But not all countries look at Bitcoin as at dangerous instrument for money laundering and terrorism. In the U.K. Home Office report on the U.K. national risk assessment of money laundering and terrorist financing, money laundering risk involving such digital currency as Bitcoin described as "low"¹⁰².

According to Europol's report, the financing of terrorist operations by the Islamic State are largely unknown: it is obvious that the costs of travel, the renting of cars and safe houses and the acquisition of means of communication and of weapons and explosives may involve considerable sums of money, but there is no evidence however of the Islamic State financing networks in existence, besides despite third party reporting suggesting the use of anonymous currencies, like Bitcoin, by terrorists to finance their activities, this has not been confirmed by law enforcement¹⁰³.

Considering situation with terrorism nowadays and fast technological development, the European Union is trying to keep its legislation updated. In a Proposal for amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending the Directive 2009/101/EC, the European Commission is willing:

- to extend strict anti-money laundering regulation to both virtual currency exchange services and custodial wallet providers;
- to restrict the anonymous use of virtual currencies;
- to apply customer due diligence controls when exchanging virtual for real currencies;
- to oblige Bitcoin companies to collect their customers' identity documents;
- to oblige Bitcoin companies to monitor transactions on their platforms and report suspicious activity;
- to address national Financial Intelligence Units to provide measures to be able to associate virtual currency addresses to the identity of the owner of virtual currencies;

⁹⁹ Press Release, US Authorities & Europol Focus On Combating The Abuse Of Virtual Currencies, 24.06.2015, available at: <https://www.europol.europa.eu/newsroom/news/us-authorities-europol-focus-combating-abuse-of-virtual-currencies>, (accessed 21.12.2016);

¹⁰⁰ Press Release, Money Laundering With Digital Currencies: Working Group Established, 09.09.2016, available at: <https://www.europol.europa.eu/newsroom/news/money-laundering-digital-currencies-working-group-established>, (accessed 21.12.2016);

¹⁰¹ Guarascio, Francesco, (2015), EU clamps down on bitcoin, anonymous payments to curb terrorism funding, Reuters, 19.11.2015, available at: <http://www.reuters.com/article/us-france-shooting-eu-terrorism-funding-idUSKCN0T81BW20151119>, (accessed 21.12.2016);

¹⁰² The UK national risk assessment of money laundering and terrorist financing report, the UK Home Office, 2015, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/468210/UK_NRA_October_2015_final_web.pdf, (accessed 21.12.2016);

¹⁰³ Changes in modus operandi of Islamic State terrorist attacks, Europol report, 18.01.2016, available at: <https://www.europol.europa.eu/publications-documents/changes-in-modus-operandi-of-islamic-state-terrorist-attacks>, (accessed 21.12.2016);

- to allow users to self-declare to designated authorities on a voluntary basis should be further assessed¹⁰⁴.

According to mentioned above, considering Bitcoin's nature, its anonymity, involvement in many transactions in Internet surface, absence of governmental control, many international enforcement bodies, national legislators are trying to amend legislation or organize international data exchange to prevent crimes connected with terrorism and money laundering using Bitcoin. Therefore to implement any changes successfully and to criminalize Bitcoin's usage in illegal actions properly, first of all, such regulators should define the legal nature of Bitcoin.

4. Conclusion

In present paper was explained role of the Bitcoin and its involvement in economic activity worldwide, using such practical examples on real business as: AirBaltic, Microsoft, Dell etc. Therefore it can be seen that Bitcoin is used not just illegal transactions in DarkWeb but also for completely legal business: bike rent, coffee sale, haircut services provision and even property sale. According to mentioned above Bitcoin usage for legal transaction raised many questions from legislators – should such transactions or Bitcoin's issue be licensed; how consumer rights can be protected; how to proceed taxations of sale or services provision in exchange of Bitcoin etc. To put businesses which operate Bitcoin in certain legal frames, first of all the legal nature of Bitcoin should be defined.

Considering views of legislators on national (selective countries legislation and court practice) and international level (the European Union legislation and international court practice), there are 3 main views on Bitcoin's definition:

- Bitcoin is a virtual currency;
- Bitcoin is a financial instrument;
- Bitcoin is a property.
-

Determination of Bitcoin's nature has significant importance to legislators worldwide to regulate business activity related to Bitcoin: licensing of institutions issuing Bitcoin if it is defined as virtual money; Bitcoin's place in stock market if it is defined as security or financial instrument; or transfer of property rights if Bitcoin is defined as commodity or property.

Analyzing mentioned in present paper legislation and court practice, it become clear that many legislators even inside the European Union, connected with same money market, treat Bitcoin in different way and there is no common view or common legal status for Bitcoin in the World. The picture of legislation on Bitcoins can be described with different points: some legislators states, Bitcoin cannot be considered as money or electronic money, other countries go further and consider Bitcoin as property, few legislators accept Bitcoin as virtual currency, some did not provide any legal status to it and in doctrine there are few views that Bitcoin can be considered as intellectual property. Just in the single U.S.A. different regulators put Bitcoin under property, currency and security regulation schemes.

However, considering Bitcoin's role in financial instrument's market is limited to future contracts and investment activity, Bitcoin cannot be fully considered as security. Moreover, on current stage of limited Bitcoin's acceptance by businesses and population, Bitcoin's characteristics cannot fall fully under all electronic money features. In case when certain countries legislation took Bitcoin under electronic money framework, contracts including Bitcoin should be considered as contracts including other type of payment (like foreign currency, which is not used commonly as national means of payment in such state) and should be regulated subsequently.

Notwithstanding mentioned above, in attempts to qualify Bitcoin's status in legal framework, many countries come to conclusion that Bitcoin cannot be considered as money, some legislators went further and defined Bitcoin as a property and Bitcoin involving operation as barter agreements (transferring certain amount of Bitcoins to someone's property in exchange for transfer certain amount of property rights for other object or services).

¹⁰⁴ Proposal for amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directive 2009/101/EC, available at: http://ec.europa.eu/justice/criminal/document/files/aml-directive_en.pdf, (accessed 21.12.2016);

Systemizing the most common points in worldwide legislation, we can make conclusion - Bitcoin should be considered as a property, whose monetary value can change, therefore operations with Bitcoins would be considered as barter agreements and Bitcoin purchases should fall under legislation (including taxation) about barter agreements. Basing on legal definition of Bitcoin in specific country or on international level, subsequent regulations should apply in area of taxation, customer protection, licensing and the most important in level of money laundering prevention and anti-terroristic measures.

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CERTAIN LEGAL ISSUES ARISING PRACTICE IN CONTAINER TRANSPORTATION IN PRATICE

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Abstract:

In practice, a large proportion of cargo is carried by container transport. Containers are often referred to as more than one type of transport and it is important to determine that at which stage of transport the disputes have occurred. Damage to container, damage to cargo in container, container detention fees are important legal issues in terms of container transport.

In our study, some of these problems were identified in current practice and have been analysed.

Keywords:

Container Transportation and Legal Issues

1. Preamble

Containers are strong portable compartments that are designed in types and sizes designated by the International Organization for Standardization¹ are convenient for carrying with sea, land and air vehicles, can be used on a recurring basis and transferred to transport vehicles, and provided with ease of loading and discharge and a special technical mechanism². Containers have different technical structures based on their intended use. For example, break bulk, dangerous cargo, bulk cargo and refrigerated cargo containers have different structures, and different types and sizes of containers are designed according to the properties of the cargo in the international arena. The International Organization for Standardization has laid down standard container sizes of 20', 30' and 40'³.

We can list the benefits of using containers in practice as follows⁴;

- ensures safe transport, loading, discharge, transfer, maintenance of commodity by protecting it from all external and environmental factors;
- reduces cost as more than on cargo can be carried in the same container.
- is time-saving as loading and discharge can be performed more rapidly and faster, and is therefore cost-reducing.
- can be stored outdoors and therefore reduces warehouse costs.
- reduces risk of damage to cargo due to fire, sea water and rain water.
- saves up in packaging costs.

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¹ ISO- International Organization for Standardization. Please see www.iso.org for detailed information. 17.5.2016.

² Article 1 of the International Convention for Safe Containers ; Kaner, İ. : Container Transport and Legal Issues, Istanbul 1982 p.3.

³ Saygılı, M. S./ Erdal M.; "Container Types and Loading", Container Maritime and Port Management, Editor: Erdal, M., Istanbul, 2008, p. 19.-23. ; www.containerhandbuch.de, 30.5.2016.

⁴ Hepgülerler, E.; Civil Liability of Those Engaged in Maritime Container Transportation, 1.B., 2011, p. 51.; www.people.hofstra.edu, 30.5.2016.

- is suitable for carrying and maintaining dangerous articles.

Container transportation also has certain drawbacks, besides its above-stated benefits. Among these drawbacks are thefts that are widely encountered due to carriage of valuable cargo in containers, danger of carrying illicit commercial goods, and requirement for high sums of technical materials in loading, discharge and stacking of containers, from a financial point of view, and need to make investments for warehouse locations, land and railway connections⁵.

In the face of these properties and its benefits, container transportation has witnessed a boom since 1960s, leading to construction of special container ships. The USA, UK, Sweden, Germany, Denmark, Japan, China are among the countries in which container transportation has witnessed rapid development⁶.

2. In terms of Container Safety Approval Plate and its Inspection

International Maritime Organization (IMO) adopted International Convention for Safe Containers⁷ in 1972 in order to ensure safety of life and property during handling, stacking and transportation of containers, to render container transportation easier, and to determine the control and inspection principles for containers, structural and operational requirements and to regulate safety and security issues in the global arena. This convention entered into force on 6 September, 1977. Although, in Turkey, Law No. 6403 on the Approval of our Accession to International Convention for Safe Containers entered into force after being published in the Official Gazette dated 31.01.2013 and numbered 28545, effective date of the convention for our country was designated by IMO as 8 August, 2014, pursuant to Convention Article VIII(2) following completion of notification procedures⁸.

As per this Convention, all containers being transported in the international waters must possess a “Safety Approval Plate” in order to be characterized as safe containers. The Safety Plate contains information as to: whether the container has passed the safety test set out in the agreement;

- when the container has been manufactured;
- the date of the next control;
- its weight, capacity.



See globalspec.com, 17.5.2016

It is important to control whether the container used before and after loading during transportation has an “approval plate”. Thus, the port authorities, container manufacturers, container owners, masters of ships carrying containers, classification societies are required to ensure that the containers are in compliance with this Convention within their own fields of activity and authorities. In this scope, the first inspections of newly manufactured containers has been

⁵ www.containerhandbuch.de, 30.5.2016.

⁶ For further information on historical background of container transportation, please see Kaner, p. 15.; Hepgülerler, p. 47 et seq.

⁷ International Convention for Safe Containers (CSC).

⁸ Implementation Directive of the Ministry of Transportation, Maritime Affairs and Communication dated 22.8.2014 and numbered 2014/27, http://imo.udhb.gov.tr/dosyam/Dokumanlar/2014_270.pdf, 17.5.2016.

carried out within maximum 5 (five) years as from the date of manufacture, and the subsequent periodical inspections within maximum 30 (thirty) months. If a container incurs any damage as a result of an accident or in case of maintenance or modification, inspections must be carried out before the expiration of these periods and certificates must be renewed⁹.

Pursuant to Article IV/1 of International Convention for Safe Containers: “For the enforcement of the provisions in Annex I, the Administration shall establish an effective procedure for the testing, inspection and approval of containers in accordance with the criteria established in the present Convention, provided however that an Administration may entrust such testing, inspection and approval to organizations duly authorized by it.” Turkish Lloyd Foundation Economic Enterprise has been authorized for this purpose. Thus, the testing, inspection and approval of containers manufactured domestically is performed by Turkish Lloyd. Open sea containers are not subject to the provisions of International Convention for Safe Containers as they are designed differently. The inspection, test and approval of open sea containers are subject to the MSC/Circ. 860 Guidelines issued by IMO¹⁰.

In view of this overall legal legislation; in case of a dispute arising with respect to a container damage, it must be principally established whether the said containers have and/or are eligible for approval plate, in other words, whether they are in conformity with the International Convention for Safe Containers. This document constitutes a presumption that the container possesses certain standards and qualities. Thus, port authorities, container manufacturers, container owners, masters of ships carrying containers, terminal operators rendering service to these ships and classification societies must satisfy all standards required to ensure compliance of each carried container with the legislation issued by IMO¹¹.

3. Applicable Provisions In Case of Containers Carried By Multimodal Transport

Multimodal transport is the transportation of goods under a single contract with minimum two different modes of transport. The carrier is liable for the entire carriage of the goods even though its transportation to the point of destination by different modes of transport. Multimodal transport is governed by articles 902 to 905 in Chapter Four of Book Four under “Freight Transport” of the Turkish Commercial Code (TCC).

If the transporter undertakes to carry the containers by minimum two modes of transport under a single transport contract, articles 850 to 893 of the TCC shall be put into practice pursuant to article 902 of the same. However, in this mode of transport, articles 903 and 904 of the TCC as well as the provisions of international conventions that must be implemented in present dispute shall rank in priority in implementation¹². If it is evident in which part of transport the event causing loss, damage or delay in delivery has occurred, the transporter’s liability, pursuant to article 903 of the TCC, shall be established according to the provisions that would govern such contract, if a separate transport contract was entered into for this part of transport, rather than the provisions of the first and second chapter, namely articles 850 to 893. In this case, it shall be subject to the provisions of CMR if the transport is carried out by land, to CIM if by railway, to Hague Convention if by sea, and to Montreal Convention if by air.

⁹ Implementation Directive of the Ministry of Transportation, Maritime Affairs and Communication dated 22.8.2014 and numbered 2014/27, http://imo.udhb.gov.tr/dosyam/Dokumanlar/2014_270.pdf, 17.5.2016.

¹⁰ Implementation Directive of the Ministry of Transportation, Maritime Affairs and Communication dated 22.8.2014 and numbered 2014/27, http://imo.udhb.gov.tr/dosyam/Dokumanlar/2014_270.pdf, 17.5.2016.

¹¹ Implementation Directive of the Ministry of Transportation, Maritime Affairs and Communication dated 22.8.2014 and numbered 2014/27, http://imo.udhb.gov.tr/dosyam/Dokumanlar/2014_270.pdf, 17.5.2016.

¹² TCC article 902 1/d “unless otherwise is stipulated in the following provisions and applicable international conventions”.

4. The Carrier's Liability upon Receipt of Cargo in Terms of the Types of Container Transportation

In terms of the types of container transportation, it is crucial to establish the receipt time of cargo by the maritime transporter in respect of the beginning of maritime transporter's liability. It is widely seen that in the event of claims for container damage or claims for damage to cargo carried in the container, the action is filed with the maritime transporter with the allegation that the maritime transporter is directly liable for the claim. However, this claim of animosity may not always be true. Because, principally, it must be established which transporter was responsible when the damage occurred according to the type of container transportation. In container transportation, the cargo is picked up from a predetermined location and carried to a port, or picked up from a port and carried to a predetermined warehouse or workplace on land. In this respect, container transportation is carried out by means of either door-to-door transport, point-to-point transport and port-to-port transport. In terms of maritime transporter, delivery is the pickup of container with full load for carriage by sea. Thus;

- in door-to-door transport; if the container full of load has been previously picked up from the seller's warehouse and carried by land or railway or air, delivery to maritime transporter occurs at the port.
- in point-to-point transport; the container full of load is picked up from a predetermined location and, after carriage by sea, is delivered to a specific location on land where the container is opened and the cargo is distributed.
- in port-to-port transport; the container full of load is picked up at the port and shipped from this port to an overseas port.

In all of the above-mentioned three types of transport, delivery to maritime transporter occurs by pickup of the cargo at the port for carriage by sea. Unless the maritime transporter further undertakes that it is also liable for previous transports, no liability arises on the part of the maritime transporter in relation to the damage incurred by the cargo during these transports.

5. The Effect on Maritime Transporter's Liability of the Bill of lading Clauses in Container Transportation

In container transportation, in order to establish the transporter's liability, the following information must be identified:

- the owner of the container,
- where and by whom the cargo is loaded into the containers,
- whether the transporter knows the details of the cargo in the container,
- who witnessed the closing and sealing of the container,
- whether the container was opened during carriage,
- at which stage the damage has occurred.

In order to identify these issues, the bill of lading used in transport must be examined. For example, as per FIO/FIOS clause on the bill of lading, although it is decided that the transporter has no liability arising from loading, stacking and discharging, from these processes, the shipper shall be liable for loading and the consignee shall be liable for discharging, the Supreme Court of Appeals agrees that the shipmaster is required to pay due care to proper conduct of the above-mentioned procedures; that, essentially, loading and stacking are obligations carried out by the shipmaster representing the ship-owner; that the shipmaster must supervise stacking process even if the loading is entrusted to other parties under a contract, and must conduct an inspection in terms of balance and safety of the ship; that the shipmaster has the preeminent obligation of supervision to ensure the seaworthiness of the ship, and where FIOS clause is in place, to supervise whether the stowing process is carried out as required; that FIO/FIOS

clause may not remove the mandatory provisions of - new TCC art.1178); and that if the shipmaster fails to fulfil his duty of supervision as a prudent master, carrier shall be liable in respect of the damage that occurs¹³.

During the stowing of the container on the board, the shipmaster holds liability pursuant to article 1090 of the TCC and, as the shipmaster represents the carrier, the carrier holds liability arising from stowing. In container transportation, containers are generally sealed after stowing the cargo in them and delivered to maritime transporter. On the bill of lading, “sealed” clause is placed after specifying the container number and properties of commodities in the container. This clause constitutes the presumption that the container is sealed and accepted. However, this clause is not sufficient. Thus, FCL/FCL (full container load), “shippers load stow and count” clauses are also noted on the bills of lading. In this case, stowing on container is performed by the shipper and the containers are delivered to the transporter in sealed state. It is the shipper’s responsibility to stow the cargo in a container that is fit for the container’s properties and conditions of the journey and pack it in proper conditions. In case of negligence of the shipper during all these activities, it is impossible for the shipmaster to find it out. In this case, the shipmaster’s obligation of supervision is not applicable and carrier shall not be liable for placement, stowing and loading of the cargo in the container under the article 1090 of the TCC. For example, if it is found out that the damage to the cargo in the container arises from the fact that the commodities were not properly stowed in the container and/or were not fixed to prevent its sliding movement, the carrier may not be held responsible from this stage.

In case the container is stowed by the carrier, the bill of lading shall not have FCL/FCL (Full Container Load) and “shippers load stow and count” clauses. However, if the cargo is packed or packaged, the bill of lading shall note “unknown content” clause and the liability of the carrier shall consider for the number of packages.

In container shipping, loading starts with the installation of the container to the crane for shipping it on board and loading is handled by the stevedores. If the container is damaged during this stage, the carrier’s liability should not be considered under articles 1178 and 1179 of the TCC. As the stevedores engaged in loading and discharging are not crew or carrier’s men, the liability should be considered under article 116 of the Code of Obligations¹⁴ which regulates the liability of associates¹⁵.

6. Container Detention Charges and Liability

As owner of the container will use the container for other transports, it requests the consignee to empty and return the container within a certain period of time. A period of time allowed for the consignee to return the container empty is generally agreed as “free time” and if these periods are exceeded, the consignee is requested to effect the payments that have been agreed.

Free time is the period from the day of release of the full containers from the ship up to the day of discharge of the goods from the containers. After this period, carrier is paid detention charges.

In practice, “container demurrage” derived from the term “demurrage” which is paid upon delay in ships. The container demurrage is essentially the “detention fee of the container”. Thus, in many disputes, the question of “from which stage the detention fee claimed by the carrier arises” creates confusion.

The container may be owned by the shipper or may have been leased by the shipper (lessee- lessor/ contractual relationship) or may be owned by the carrier or may have been leased by the carrier. The entitled party of the

¹³ Y. 11. H. D., 10.02.2004, 2003/6236E., 2004/1043K.; Y.11. H.D. , 10.10.2006, 2005/6756 E., 2006/10079 K.; Y. 11. H.D. 29.12.2014, 2014/9903 E. 2014/20435 K.

¹⁴ Turkish Code of Obligation Article 116 : “Even if the obligor commits the performance or the use of rights related to obligation to the associates such as people living together with him or his workers in accordance with the law, he shall be liable to compensate the damages caused by them during the performance of the business. The liability for acts of associates may be lifted fully or partially by agreements in advance. If a service that requires specialization a profession or an art can only be performed by the permission of law or competent authority, the agreements on exclusion of obligor’s liability for acts of associates in advance are definitely void. ” Özel, Ç.: Turkish Code of Obligations, Ankara 2014, p. 161.

¹⁵ Kaner, p. 68.

container detention fee should be considered based on these options. If the container is supplied by the carrier; there must have been agreement between the carrier and the debtor in order to the carrier can be entitle to ask for detention fee due to return of the container to the carrier after the agreed “free time”. The related arrangement may be incorporated in the bill of lading or in the freight contract between the parties. However, in cases whereby the parties have not entered into an agreement in this regard, port-to-port transports shall be governed by articles 1174 and 1176 of the TCC.

As a matter of fact, the container is considered as general cargo¹⁶ in the sense of article 1138/2 of the TCC. In this case, the cargo must be picked up without delay upon the shipmaster’s notice. Therefore, the consignee must receive the container without delay as from the receipt of notice and discharge the container and return the container to the carrier. If the consignee violates of this obligation, for example if the consignee refrains from receiving the cargo or fails to notify whether he is ready to take delivery of the cargo upon written notice or he cannot be found, the carrier is required to deposit the cargo at the expense and risk of the consignee pursuant to article 107 of the Turkish Obligation Code¹⁷. Where the characteristics of the cargo is not proper to deposit of or the cargo is perishable or maintenance, protection or deposit of the cargo is significantly expensive, the carrier may sell the cargo with the consent of the judge and deposit the sale proceeds on condition to notify the consignee in advance pursuant to article 108 of the Turkish Obligation Code¹⁸.

On the other side, pursuant to article 1207 of the TCC, if the consignee does not use his right to take possession of the cargo, the shipper shall be liable for payment of the freight and other claims (such as demurrage) which arise under contract of affreightment. The consignee shall be liable for the container detention fee only if the consignee receives the cargo. In this case the shipper shall be released from this obligation¹⁹. The consignee must acquire direct or indirect possession of the cargo. For example, if the consignee’s authorized representative has received the mate’s receipt or/and filed legal applications for the customs data and documents on behalf of consignee, then it means that the cargo is received by the consignee.

The consignee shall be liable for the container detention fee arising from events occurring in the consignee’s field of activity. For example, the delay occurs due to legal procedures in the terms of the properties of the cargo at the port of arrival is excluded from the carrier’s field of liability. As the cargo considered under the carrier’s control until the time of delivery of the cargo to the mandatory authorities, his liability shall continue until such time.

The conditions related to container detention fee must be mainly printed on the bill of lading. The consignee must have knowledge of the applicable tariff. However, in practice, it is generally seen that neither the bill of lading nor its attachment contains container demurrage/detention tariff. In case of disputes, the calculation is made as a result of examination of the correspondence between the parties and the precedents tariffs. The invoices issued in the name of the debtor are not sufficient alone to prove the claims for container detention fees. The legal basis underlying the claim must be principally analysed. Thus, in order to calculate delay fee for each container, the date of delivery of the containers to the consignee and the date of discharge and return of the container must be proven separately for each container. For example, “arrival notice” indicates arrival to the port of discharge and “delivery-receipt documents” which indicate return of containers are the documents which can prove the claim.

7. Obligation to Inspect and Notify of Damages to Containers and Cargo in Containers

¹⁶ A box which has various kinds of things inside.

Şeker, Ö.; “The Supreme Court of Appeal’s Practice that Consignee’s Liability For The Demurrage Fee (Container Detention Fee) Despite Non-Receipt of the Cargo”, Istanbul University Faculty of Law Periodical (İÜHFİM), V. LXVI, P. 337-342, 2008, www.journals.istanbul.edu.tr, 27.5.2016.

¹⁷ Özel, p. 154

¹⁸ Özel, p. 155

¹⁹ Şeker, Ö.; “The Supreme Court of Appeal’s Practice that Consignee’s Liability For The Demurrage Fee (Container Detention Fee) Despite Non-Receipt of the Cargo”, Istanbul University Faculty of Law Periodical (İÜHFİM), V. LXVI, P. 337-342, 2008, www.journals.istanbul.edu.tr, 27.5.2016.

Pursuant to article 1184 of the TCC, before receipt of the cargo by the consignee, the carrier, shipmaster or the consignee may have the state and condition of cargo examined in order to determine the size, amount or weight by the court or other competent authorities or by the authorized specialists for this purpose and pursuant to article 1185 of the TCC, damage and loss must be notified within maximum three days to be consecutively calculated as from the date of delivery of the cargo to the consignee.

In practice, in container transportation, cargo damages notification is served earliest after the opening of the containers at the warehouse of the consignee and examination of experts appointed by the insurance company. This procedure generally takes more than three days. In this case, it is assumed that the consignee has failed to fulfil its obligations of examination and notification pursuant to article 1184, 1185/1 of the TCC and the carrier has delivered the cargo to the consignee as stated on the waybill and if there is any damage, the damage has occurred from a reason for which the carrier is not responsible. In this case, for example, the damage is considered to have occurred,

- at the port waiting queue,
- during loading of containers to the truck,
- during land transport,
- during discharge from the truck
- at the consignee's warehouse.

These presumptions must be rebutted by the plaintiff/consignee.

When evaluating the reasons for the container damage and/or cargo damage in the container, it will also be useful to make a final evaluation on the two important cases that we have encountered in practice. Firstly; if in-container loading and unloading is conducted at customs bonded areas at the port, despite the requirement to conduct in-container stacking and unloading activities directly via specialists, it is generally seen in practice that customs brokers are present during these stacking and unloading activities. In this case, duty of care to the cargo is not generally performed duly and the period of notifications cannot be fulfilled on time due to inability to determine damage to cargo in a timely manner.

Secondly; container cargo may occasionally wait for a long time at open sea ports. At this time, containers may seriously get wet due to air and sea conditions. Thus, before concluding that the carrier is liable for the damage as a result of the silver nitrate test conducted in the container, it must be determined how long the container has waited at the port and under what conditions. In fact, due to invisible holes in the containers, rain water and sea water might have penetrated into the containers. In such cases, the leakage may only be determined by an inspection of the containers such as soaking the containers into a special pool²⁰.

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²⁰ Özgen, H. : “Container Repair and Maintenance Operations”, *Container Sea and Port Management* (Editor Erdal M.), İstanbul 2008, p. 280 et seq.

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Abstract:

By the invention of money trading contract lost its popularity and left its place to sales contracts. Sales contracts have maintained their place for centuries. However, while performing them some difficulties arisen since the interest has become effective in actual payment of sales contracts. The cost of the money has increased with the effect of interest and has caused great economic problems. The barter system has been invented in the economies of the developed countries as a result of big troubles and become a promising financing instrument. Barter membership contract and barter contract, which is my thesis study, is an issue that is not regulated in Turkish law and has not been studied much. This article is written to introduce the barter system and the contracts constituting this system.

Keywords:

Barter System, Barter Membership Contract, Barter Contract

1. Introduction

Money is the most common means of exchanging goods and services. This functional means was invented by Lydian's which dominated the west part of Anatolia around 7th century B.C. for contributing the commercial activities. With the development of trade, the borders had also expanded and exchange system used in trade had become insufficient for the people. Due to the problems arising from both parties believing its own goods is more valuable, unbalance between the exchangeable goods, indivisible character of the goods and inability to find anyone supplying goods, money had been invented. With the invention of money exchange contracts lost its popularity and left its place to sales contracts. Sales contracts have maintained their place for centuries. However, while performing them some difficulties arisen since the interest has become effective in actual payment of sales contracts. The cost of money due to the effect of interest has increased and caused big economic problems. So the barter system has been invented because of the economic problems in the developed countries and become a promising financing instrument. While saying that barter system has overthrown the money as a financing instrument, a closer look at the issue uncovers that money needs to be in a barter system albeit functional. Money is not used in a barter system as the provision of goods and services of the members provided in kind. However in order to keep the current account of the members easy and correct and to prevent injustices, the value of goods and services or debts of the members registered in terms of cash. This is a solution for the defective component of exchange.

Barter system based on money which is indispensable for commercial life has a very important role compared to the value of money in exchange system. For this reason, this study will briefly mention about the barter system and describe the legal qualities of the contracts constituting the system

2. Barter System

When we look at the word meaning of barter, in all usage the word means a contract between two parties that allows the exchange of a good with another without using money.¹ Classical barter system is the name of the system which a various number of members come together to satisfy their needs of goods and services without using money.

¹ Celal Gürsoy, *Barter El Kitabı*, İstanbul, (1998), 2nd edition, 1, Göksu Printing.

Apart from the barter contracts, it is also possible to pay a certain amount of money together with the goods or services in the reciprocal trade agreements, corresponding to the value of the goods or services to be bartered, as well as the basis of mutual exchange of goods or services in the barter system.²

The barter system constitutes an organization company and members called barter organization company. Regarding the functioning of the barter system, the first thing that needs to be mentioned is to become a member of the system it is possible with a barter membership contract.

The barter system is introduced by the barter membership contract which is prepared by the barter organization company and which is usually printed and will be mentioned in detail below. Before entering the system, a barter member delivers the documents requested by him or her to the organizer company. These documents may differ between barter companies. The organizer company usually demands some documents like specimen of signature, tax board, certificate of activity, written document showing the activity area of the company, supply notification form and demand notification form from the member company.

The supply notification form contains information about the goods or services produced or sold by the member company. In the demand form; information about the goods or service requests that the barter member company has requested from the system but which the system does not see in the information operating system.³ By means of this form, the organization company provides new members to the system and enlarges the system according to the goods or services that the member needs in order to facilitate the debtors' contribution to the system. In some of the barter contracts, the barter company is given time to fulfill the request of the claimant. This time can be changed between 9 to 12 months. If the barter company eventually fails to provide the goods or services that the member needs, the barter company is entitled to use the fund, which is called the member guarantee fund, to provide the goods or services needed elsewhere and to provide the barter company with the cost of the goods or services.

The information on the supply and demand forms is added to the supply and demand lists of the organization company. These supplies and demands are shared on the internet by the organization company to let all members informed. Thanks to this information flow, members of barter system can easily access to supply and demand, making it easy to shop.

With the barter membership contract, a current account is created by the organizer company to the member who enters the system. Thanks to this current account registration, member companies' liability-indebtedness status is determined in the system. The organization company sends the account statement related to the current account to the barter member at regular intervals and the member who receives the account statement may object to the organization company in written within the period specified in the membership contract.

The barter member usually has the right to change the amount of the goods that it provides, but some barter companies could restrict this. The member of the barter who is going to make changes in the properties that he or she has presented must inform the organization company in this matter, otherwise this issue can be considered as the reason for the termination of membership contract.⁴

² Ayşe Dilşad Keskin, Barter Sözleşmesi, Ankara, Turhan Kitapevi, 2004, p.11

³ Burak Arzova, Barter İşlemleri, 2000, İstanbul, Türkmen Kitapevi, p.14

⁴ Arzova, ibid, p.16

The barter member peer to peer communications with the member who provides the goods or services that he or she wants to buy in the barter system, and makes the deal. In barter system, members can freely determine the value of the goods or services that they agree on the exchange of goods or services. The member in the supply of goods or services can determine the price as he wishes and can decide on the market price.

The barter member offering the goods or services receives a barter check at the transaction value from the buyer barter member in exchange to the credit of his or her account. Barter members receive a sales authorization code from the organization company when they make this deal. Transactions without this approval code do not correspond to the barter contract, but to a classical debts contract. Because of this, it is important to pay attention to the sales authorization code, as the seller and buyer will not change the current account of the firm and will not be accepted as a barter contract, but my opinion is that transactions made without obtaining a sales authorization code will not always be considered as a classic debts contract. That is to say organization company is also aware of the transaction between these two barter members. The barter member should be considered as an affirmative confirmation of the organization company's contracts that the organization company does not give consent to the contracts they have made between them, but the transactions made to the current account of the members are not implied. Otherwise, member companies may be suffered, and they may face the danger of termination of their contracts against the contract. At the flow of commercial life, I think that my opinion in this direction is fair because it will cause the transactions to become difficult because of the request of the written approval code for every transactions from organization company.

The member who is a member of the barter system does not need to show a guarantee for acceptance of the membership. The obligation of the barter member to show guarantees varies depending on whether it supplies goods or service to the system or demands goods or services from the system. Namely, if the system member is a creditor from the system because it supplies goods or services before the barter system, it can claim from the system without any guarantee as it has the purchasing credits up to the amount it can receive.⁵ This purchase credit given to the barter member by the barter firm to buy goods or services from the system when entering the system corresponds to the credit balance resulted from the sale made by the member in the barter system.⁶ Otherwise, in other words if there is a case where the member first requests the goods and services from the system, the barter system should provide guarantees as much as the purchase price. The credit limit given to the member of the system by the barter firm may be in the form of a real estate mortgage as well as a letter of guarantee issued by the barter member. The company which is a member of the barter system has to pay the debts to the system within the period specified in the membership contract. This time is usually one year, depending on the preference of the barter companies can be shortened or extended as well. If barter member can not pay its debt to the system on the date specified in the membership contract, the borrower will have to pay all debts to the organization company at once and in cash and with interest. However, in this case the conditions may be changed by several additional protocols between the parties. The interest of the debt can be deducted, commission can be decided not to be taken or installment possibility may be offered to the debtor company. Apprehension of the provisions to be applied in this case is at the initiative of the parties in the framework of the regulations introduced by the general provisions.

3. Barter Membership Contracts

3.1. Definition of the Barter Membership Contracts

⁵ Türker Yalçınduran, Barter Sözleşmesi, Banka ve Ticaret Hukuku Dergisi, Issue 4, 2004, December, p. 144

⁶ Arzova, *ibid*, p.16

Barter membership contract is a contract between barter organization company and the candidate member company. The parties have a variety of rights and obligations while these are not included in our laws they remain as obligatory contracts under innominate contracts. The main purpose of the barter membership contract is; in terms of the candidate member company to benefit from the barter system by purchasing goods or services, and in terms of the barter organization company to find new members for the system and to operate the barter system accordingly.

3.2. Rights and Obligations of the Barter Organization

The most important task of the barter organization company is to expand the barter system by finding new members to the barter system. The organization company serves to ensure that the system is a continuous, active and unblocked system, while offering members a variety of goods and services in the system.

A current account is created by the organization company to the member signing the membership contract with the organization company and the control of this current account is provided by the organization firm. It is audited whether or not the borrower is responsible for the debts of the organization company by the contract, and the necessary measures are taken in adverse situations. The organization also has the obligation to regularly inform the members about the account status of the members.

At the same time, the organization company also records the information of the goods or services offered by the members in the system so that the other members can easily access this information and benefit from the system as they wish. The organization company constantly updates the data on the goods or services offered to the system, which helps the members to correctly evaluate and use this information. According to this information it is clearly understood that the organization company is under the rights and obligations of having more than one business.

3.3. Rights and Obligations of the Barter Member

When the rights and obligations of the barter member company, which is the other side of the barter membership contract, are examined; it will be seen that the most important contractual obligation of the member signing the barter membership contract is to pay the debt to the barter system during the time specified in the contract.

The barter member company pays the debts to the system with barter contracts that contain various issues that the system members can make with the goods or services they have. Although these barter contracts are purported as contract of sale or contract of work, it actually constitutes the barter contract.

The barter system member also has the right to ask the organization firm to make new memberships in order to obtain the goods or services necessary for its operation. At the same time, this is the obligation of the organization company. The use of this right, which the barter system member has, ensures that the barter system is always active and up-to-date and that the system's trade volume is widened.

The most basic function of the barter member's right to request the presence of new members in the barter system is undoubtedly the convenience created by the system member for the payment of debts to the system. The barter member uses this right not only to pay the debt to the system but also to cover the need for goods or services from the system.

In classical barter systems barter member company has to trade goods or services without using money in intersystem exchanges. In some of the new barter systems, the barter member company has the right to use money at the rates specified in the barter membership contract. Another obligation of the barter member company is to

comply with the rates determined in the barter membership contracts in the barter systems where the money is not used and in the systems that allow the use of the money and to comply with this law during the system purchase.

3.4. Legal Nature of the Barter Membership Contracts

In Article 1 of Turkish Code of Obligations, where the legal definition of the contract is made; it is stated that the contract will be established by mutually and appropriately disclosing the parties' wishes. The most fundamental principle that governs contracts as it can be understood from this definition is the principle of mutual consent.⁷ With the most classical definition in order to establish contracts, two mutually and complying declarations of will will have to be found.⁸ Contract is a proposal called on occasion and comes into being with this acceptance.⁹ It also means that anyone is free to sign a contract as someone wishes, as it is meant to mean that no one will be forced to contract as a rule.¹⁰

There are two main categories for whether or not they are regulated in the law of contracts. Contracts that are clearly defined in terms of their elements and the way in which these elements are arranged are called unnamed contracts whose elements or arrangement of law are not regulated by law.¹¹ However, it has also been stated that the law only requires that a contract be stated by the name, but that the contract is not sufficient for the contract to be accepted as a named contract, and that the law should contain substantive regulation.¹² I agree with the assertion supported by Mr. Kuntalp by example, and I prefer to use the distinction between nominated or innominate contracts when discrimination is made according to whether they are regulated in the law of contracts.

The barter membership contract and the barter contract, which are the subject of this article, have also emerged as a product of the above mentioned freedom of contract and freedom principle. Barter membership contract is not included in our legislation and therefore it is included in the category of innominate contracts. However, it can not be said that the barter membership contract is a typical contract. There are different opinions about the contract and the quality of it in our country that has chance to be implemented. For this reason, I consider the barter membership contract to be an atypical contract.

Innominate contracts are contracts which are not included in our legislation but which are bound to be implemented as a consequence of the principle of freedom of contract and whose boundaries are determined by the application of the judgments of the parties.¹³ Innominated contracts in general terms are not contracts, but contracts created by the wills of the parties. Innominated contracts according to general acceptance categorised as combined, complicated, sui generis and incomplete contracts. Mr. Kuntalp distinguishes the innominate contracts as their own specific contracts and complicated content contracts because of the view that I have mentioned above.¹⁴

⁷ Erdem Erdenk, İstanbul 2008, Legal Yayınevi, İş Hukukunda İsimli (Karma ve Kendine Özgü) Sözleşmeler, p.27

⁸ Aydın Zevkliler ve Emre Gökyayla, Borçlar Hukuku Özel Borç İlişkileri, 2016, Ankara, Turhan Kitapevi, 16th edition, p.1.

⁹ Hüseyin Hatemi ve Emre Gökyayla, Borçlar Hukuku Genel Bölüm, 2015, İstanbul, Vedat Kitapçılık, 3rd edition. p.30

¹⁰ Mustafa Alper Gümüş, Borçlar Hukuku Özel Hükümler- Kısa Ders Kitabı, İstanbul, 2015, Vedat Kitapçılık, p. 3

¹¹ Erden Kuntalp, Karışık Muhtevalı Akit (Karma Sözleşme), 2013, Ankara, Banka ve Ticaret Hukuku Araştırma Enstitüsü, Türkiye İş Bankası A.Ş Vakfı, p. 3

¹² Kuntalp, ibid, p.4, Fahrettin Aral, Hasan Ayrancı, Borçlar Hukuku Özel Borç İlişkileri, Ankara, 2015, p.53, Yetkin Yayınları.

¹³ İstanbul University, Faculty of Law, Department of Civil Law, Assistant Professor Saibe Oktay, isimli sözleşmelerin geçerliliği yorumu ve boşlukların tamamlanması, İHFM, C.LV (1996)

¹⁴ Kuntalp, ibid, p.13

According to the most common definition the complicated contract occurs in a manner in which the law envisages the various types of actors in a manner not envisaged by law.¹⁵ Complicated contracts are also subdivided into sub-headings, including contracts and combined contracts, which include double-handed, united, foreign acts.

Complicated contract is also called as a typical contract. As can be understood from this definition, it is a type of mixed contract in which one of the parties of the contract is usually under one obligation to act, in this case it is usually pecuniary debt, while the other is under multiple obligation of contract type.¹⁶

After I have made a brief description above, I have found that the contract closest to the barter membership contract is a complicated contract and is a combined contract of complicated contract types. The reason that leads me to this result is the barter system member and the barter organization company's acting responsibilities, which is the side of the barter membership contract. In the barter membership contract in which one of the parties as it is in the combined contract has more than one principal liability of the typical contracts, such as power of attorney, brokerage. The basic obligation of the member company is to pay a commission for membership subscription and barter contracts.

3.5. Form of the Barter Membership Contract

As I explained the legal nature of the barter membership contract, I stated that barter membership is an atypical contract that is not regulated by the law of the membership contract and that it is a complicated contract which is a type of mixed contract from innominate contracts. A complicated contract is a contract created by bringing together elements of certain contracts in an unforeseen manner. It can be argued that the complicated contract is also subject to the likelihood that one of the elements brought together will be subject to the form. As barter membership contract is a complicated contract, it has been examined whether barter membership contract is subject to any kind of bargaining agreement in terms of whether it is subject to the barter membership contract and the typical contracts of membership contract.

In the barter membership contract, the most important activity of the organization company is brokerage. The brokerage contract corresponding to this activity of the organization company and the regulations in Article 520 of the Turkish Code of Obligations were examined and it was seen that the ordinary brokerage contract was not subject to any form but the immovable brokerage contract was subject to written contract.

Another typical element of the barter membership contract is the organization activity of the organization company, in the interests of barter members, independently. It corresponds to the provisions of the contract of agency of this organization activity. It has been stated that the proxy agreement, which is regulated in Article 502 of the Turkish Code of Obligations, is not subject to any form. For this reason, we would like to state that the barter membership contract, the acts it contains in relation to the contract of attorney, does not bring any regulation on the barter membership contract.

Typical elements of the current account contract are also included in the barter membership contract. The current account contract should argue that the barter membership contract is among the essential elements of the act. The personal opinion regarding the subject is that the barter membership contract requires that the current account

¹⁵ Haluk Tandoğan, *Borçlar Hukuku (Özel Borç İlişkileri)*, 1990, İstanbul, Evrim Basım, C. I/1, 6th edition, p.69

¹⁶ Erdenk, *ibid*, p. 44

contract system is used and that the current account is kept in the barter membership contract but that the current account registration should be held by the organizational company rather than the current account relationship side in the current account of the barter membership contract makes the current account record of the barter membership contract atypical. For this reason, I am of the opinion that the subject matter of the current account contract must be adhered to when assessing the issue, and that the barter membership contract of the writing contract of the current account contract should not affect the barter membership contract.

Explanations that I have made about the form of the barter membership contract above, the immovable property activity of the organization company appears. For this reason, the contract name shall be subject to the written form requirement.

3.6. Solution Methods for Disputes Arising from Barter Membership Contract

Barter is a contract with an unnamed name, which is not regulated in the contract of membership, and which causes both sides to borrow a debt. For this reason, it is necessary to first look at the way in which disputes are resolved in nameless contracts.

The first place to apply for disputes related to an unnamed barter membership contract is the text of the contract itself. The text of the contract usually sets out a number of points that may be subject to disagreement, but the regulations in the text of the contract may be considered inadequate as it is not sufficient and may be invalid as it includes provisions contrary to the law. Some of these reasons are inconsistent with the sanction of the general transaction or general ordering provisions. This and other similar reasons can lead to a contract gap in barter membership contracts.

The barter membership contract of mixed nature also includes acts of typical contracts in accordance with a characteristic of complicated contracts. I accept that as a rule, the typical contracts can not be applied to the innominate contracts¹⁷, and I do not agree with the principle of loyalty to the contracts, I agree that the typical contractual provisions to the extent that it falls appropriately can be applied to settle any possible disputes. What should be noted here is how the typical contract elements are in accordance with the barter membership contract. While this assessment is being made, it is necessary to consider the similarity of the typical contract provisions to the provisions of the barter membership contract, and the benefit expected from the typical and atypical contracts, as well as the purpose of the matter and judicial decisions and contracts.¹⁸

Although specific contracts can be applied to complicated contracts to the extent that specific provisions fall in place, how to implement this practice should be discussed. The opinion that I am closest to the views on the subject is the theory of individual application of the statutory provisions. Because the use of the acts of the typical contracts that constitute the mixed contract will be taken away from the atypical contract. It would also be inconvenient for me to find the elements of the typical contract within the complicated contract and for the creation of a law to be disputed with these provisions. For this reason, I believe that the typical contract provisions appropriate to the settlement of this dispute must be applied to the dispute, taking into account the central dispute, in respect of the atypical nature of the mixed contract. The Barter Membership Agreement also includes typical contracts such as a proxy agreement, a brokerage contract and a current account contract. Provisions relating to these typical contracts

¹⁷ Kuntalp, *ibid*, p.226

¹⁸ Kuntlap, *ibid*, p.190

may be applied in accordance with the principle of individual application of legal provisions to disputes related to barter membership contract.

The barter membership contract is a contract that burdens with debts to both parties. The contract is based on the performance of the debts and various disputes may arise during this process. Typical disputes that will arise at the end of the debt will be resolved within the framework of the general provisions of the Code of Obligations. Because barter membership is an innominate contract without special arrangement in the contract, but the general provisions of the Code of Obligations also apply to this contract.¹⁹ For this reason, it is possible to fill the vacancies in the contract with the special and general provisions of the Code of Obligations.

If there is no direct or comparable provision in accordance with the theories referred to above in the Barter Membership Agreement, the contractual space shall be filled by the judge by law.

4. Barter Contract

While there are lots of opinions about the barter contracts, in my opinion barter contracts are contracts that the companies that are members of the system for every contract they make to pay their debts to the system. Some authors refer to these contracts as individual contracts or tangible contracts.²⁰

Barter contract, as I mentioned above, is categorically defined within the barter system and is an independent contract within the system apart from the barter membership contract. Barter contract is atypical contract which is complete with the approval code of the organization company, in which the exchange of goods or services between the members of the system and the payment made by the members to pay the debts to the system, without using money. The member who receives goods or services from the system with this contract does not have to pay the member of the system that has obtained his or her performance in person and can not pay the debts arising from this exchange. A member who provides goods or services to the system in a similar manner and which allows a member to benefit from such goods or services can not claim the right of receipt after the purchase himself or herself and can not claim the right to receive such money in the same manner. A member's right whose performance constituted in the barter contract to claim is equal to the goods or service to be obtained from the system.²¹ As you can see, members of the creditors and borrowers who make a barter contract in the system face a unique reciprocity relationship. In addition to being fixed that the member who provides the system member has a right to receive the claim, the borrower can request the system to the system from any member of the system, not from the person who is acting as if it is in the typical contracts.²² In this way, members can be creditors in a barter contract while falling into the debtor position in another barter contract.

4.1. Rights and Obligations of the Parties in the Barter Contract

A member who wants to obtain goods or services from the barter system or who pays the debts to the system can supply the goods or services to the system and may contract with another system member who is in compliance with this demand. The most important condition for the barter contract to be made is to join the barter system with

¹⁹ Kuntalp, *ibid*, p.222

²⁰ BELEN, Herdem, *Barter Sistemi Hukuki Yapısı ve İşleyişi*, İstanbul, 2007, p.7.

²¹ *ibid*, p.113

²² Pieper, Niklas, *Die rechtliche Struktur bargeldloser Verrechnungssysteme, unter besonderer Berücksichtigung von Barter- Clubs und LET- Systemen*, Berlin, 2002, pp. 117-118, Belen, *ibid*, p.113.

barter membership contract. Members of the barter system may sometimes request a goods or service not included in the system to meet a requirement in the system. In this case, a single commodity or service will be purchased, but in order to meet the needs of the system members, the commodity or service is requested to be a member of the member system and the membership of this committee is terminated after the commodity or service needs are met.²³ As it is clear from the explanations, it is necessary to sign the barter membership contract and join the barter system to make a single barter contract.

Although barter's contract is an innominate contract, the parties have to comply with the general provisions as they are in the classical Code of Obligations contracts. The parties to the barter contract must comply with these provisions in the barter membership contract and the barter contract,²⁴ as they will not be able to make an innominate contract against the law, morality, personal rights and public order.

Since barter contract is not a typical contract, the rights and obligations arising from the contract of the parties will be determined first of all with the barter contract provisions between them. The main contract that must be considered before the provisions of the barter contract is the barter membership contract, which sets the system rules and the obligations of the parties in the barter system. Since barter membership contract is a framework contract, it is necessary to observe the provisions of this membership contract in every barter contract.

In addition to barter membership contracts, barter contracts that include typical contractual acts and barter contracts and corresponding parties to barter contracts may also be applied to non-contractual disputes when the contractual obligations of the barter contract are determined. For example, the barter contract with the provisions of the sales contract made within the system will be applied to the extent that the provisions of the contract of sale fall in accordance with the contract. Similarly, a member who supplies goods to the system has the right to benefit from the provisions of the defamation clause against the defector.

4.2. Legal Nature of the Barter Membership

The barter contract is an arbitrary contract type in which the barter system exchanges goods or services with each other in order to pay the debts of the members to the system. A member who wants to purchase goods or services from the barter system obtains the desired product by communicating with the member who provides the goods or service requested by the system. It is sufficient for the establishment of the contract to provide the approval code of the organization company so that the parties can comply with each other and acquire the quality of a barter contract. The approval code of the organization company allows us to treat the contract as a barter contract. This is because the barter organization company does not issue this approval code and is not a contract barter contract, it is a typical Code of Obligations contract.²⁵

As can be understood from the above description of the barter contract, barter contracts are established with the parties' wishes and the approval code of the organization company. After the barter contract is established, the member who requests the goods or services receives its demands from the system. The current account of the member who obtains the goods or services from the system is recorded as a debt record, while the account of the

²³ Aslan, Sinan, Barter İşlemleri ve Muhasebesi, Vergi Sorunları, September 2004, Issue 192, p.147

²⁴ Oktay, ibid, p.3

²⁵ Belen, ibid, p. 82

member who contributes the act is deducted. Thus, the two sides are burdened with debt. For this reason, the barter contract carries the character of a contract that generates debt as a contract type.

The barter contract is an innominate contract that is not regulated in the law like the barter membership contract. Incomplete contract is with the definition of Prof. Dr. Mustafa Alper Gümüş a contract that contains elements of a specific contract type enacted by law with one or more elements missing. When demonstrating the issue the author stated that the contract without constituting any charge (payment) in it is an incomplete contract, not a contract of work. The author further stated that for a contract to be considered as an incomplete contract, the legislator must have not established a contract with a missing element as a named contract, for example, if the contract is not a lease, there will be no incomplete contract.²⁶ By this definition, I would like to state that I am convinced that the barter contract is close to the contract which is imperfect contracts under innominate contracts. Because the barter contract sometimes involves the actions of a sales contract, which is a typical contract enacted by law, but with the characteristic of reciprocity inherent in the sale contract, the characteristic of reciprocity specific to the barter system, and the fact that the right of the member to receive the act is not money. For this reason, the typical contract of sale defined in the barter contract is incomplete contract with the reason that several elements of the contract can not be transferred.

4.3. Form of Barter Contract

Under this heading, the form of the barter contract will be examined. The reason why I give a headline to the form of the barter contract is that it deals with a wide variety of goods and services exchanges. As a rule, the barter system can take advertising services that are not subject to the rules of the company system, as well as real estate exchange which is officially subject to purchase and sale as a rule. At this point, it gives rise to the question of how the barter contract should be.

As a barter contract is an innominate contract, it is also a factor affecting the contract. As a rule, it is not possible to apply the provisions of the typical contract to the innominate contract, since it is not regulated in the laws, but as mentioned above it contains the missing elements of the contracts defined in the barter contract. For this reason, it is necessary to apply the above-mentioned barter contract to the extent that it conforms to the barter contract of the provisions enacted by law of the typical contract it contains. In this way, the barter contract will affect the typical contracts it contains.

When determining the form of contract in innominate contracts, it is checked whether the typical contracts contain within the innominate contracts are subject to any form, and the most severe form of the typical contracts that are subject to the form is determined by the innominate contracts. To demonstrate in the light of this information, a member company that wants to acquire a movable property through a barter contract may complete the barter contract by agreeing with another member of the system that meets this demand and by obtaining a sales approval code from the organization company. In this barter contract for the exchange of movable commodities there is no condition for the establishment of the contract. On the other hand, when the barter contract is a real estate exchange, the parties will need to do so in accordance with the official written form.

5. Conclusion

Barter membership contract and barter contract are atypical contracts arise from the barter system. As put in detail above, barter membership contracts especially differentiated from atypical contracts by having current account

²⁶ Gümüş, p. 10

registration and its own proxy relationship. Barter organization company's brokerage activity in the barter membership agreement is largely in line with the typical arrangement.

The barter contract is a type of contract in which the transactions are made between within member and system members are paying for their debts and money is not used. The non-use of money in the barter contract and the lack of a mutual debt-to-lender relationship to the contract are the most fundamental differences that distinguish the barter contract from the typical contract that resembles it. A unique reciprocity relationship by including exchange contract, contract of work and many other contracts remove it from typical elements and place it into the barter contract form.

The Barter system is a system that is highly ambitious and has a high potential for development, as it emerges as an alternative financing tool to the emerging economic monetary policy. Legal arrangements related to international trade in Turkey have made it possible for the barter system to expand and develop domestically, but researches have shown that the barter system has not yet caught the popularity in Europe and America not in Turkey. While there are various reasons for this situation, I believe that the standard variations in the quality of goods or services make trade in our country mostly on cash.

I believe that the barter system can be regarded as a reliable place for itself and as a reliable financing model in the developing economic system. The name of the organization company must be able to operate the barter organization perfectly and make an effective effort to grow the company. All of the books and articles on the barter system emphasize this point. I believe that if the barter organization company fulfills its mission perfectly, possible disputes will decrease rapidly and the barter system will become a very important place in our country.

The barter system can be a solution to the stagnating commercial life, or it can be used as a solution for the continuation of commercial life in countries where economic embargoes are applied. However, as I have pointed out above, all the positive aspects of the barter system I have mentioned depend on the existence of a reasonably well functioning system.

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THE NOTIFICATION MADE TO THE AGENT

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Abstract:

Individuals can not only follow their legal transactions themselves, but also can appoint agents for these transactions. By thinking this possibility, the law maker regulated the procedural actions done against the people who follow the legal action about an individual himself. In our work, following will be mentioned; the concept of representation and the scope of deputation, in works which are followed by an agent under which circumstances notifications should be made for an agent and principle, the result of the notification made for the assistant and/or intern of the agent or in a situation where being represented by more than one agent. Lastly, the sanction of not obeying Notification Law 11th article will be stated.

Keywords:

Notification, Representation, Reputation, Administrator, Notification Law

1. Introduction

Notice means annunciation, recital, announcement, and informing. It is process that a citation or a written order is delivered to acceptor and in return, relevant person is informed about the subject-matter by receiving his/her signature. Notification is an official act made on the purpose of informing persons, who are influenced by the legal results of a transaction or a movement, about this transaction or movement and documentation of this informing¹. As a consequence of this movement or transaction, relevant person can be entitled to rights or liabilities and prohibitions can be arisen for this relevant person. The person who is affected by all of them is acceptor or answerer².

In accordance with the principles of fair hearing, right to defense, right to be heard, hearing in a reasonable time, and procedural economy, notification must be duly made in time. Each of the rights mentioned constitutes basis of adjuratory procedures, and they are codificated as peremptory rules in our several codes. The right to be heard which is a part of fair hearing and is reflected in notification expresses that persons have to be informed about legal transactions started. Being able to use this right depends on notification which is duly made³.

Each of parties follows proceedings on one's own or via an agent. In lawsuits pursued by the agent, every transaction is made to agent instead of principal. In our work, generally, notification and results of notification made to agent in conjunction with several Supreme Court decisions will be explained after mentioning the relation between principal and agent.

¹İlhan E. Postacıođlu, *Medeni Usul Hukuku Dersleri*, İstanbul: Sulhi Garan Matbaası, 6.bs, 1975, s.478; Saim Üstündađ, *Medeni Yargılama Hukuku*, C I.II, İstanbul 2000,s.427; Hakan Pekcanitez, Ođuz Atalay, Muhammet Özekes, *Medeni Usul Hukuku*, 14. bs., Ankara, Yetkin Yayınları, 2013, s. 168.

²Baki Kuru, Ramazan Arslan, Ejder Yılmaz, *Medeni Usul Hukuku*, 20.bs, Ankara, Yetkin Yayınları, 2009, s. 795; Nesibe Kurt Konca, "Türk Hukukunda Tebligata İlişkin Güncel Sorunlar ve Çözüm Önerileri", *TBB Dergisi*, 2014/114, s. 240.

³Muhammet Özekes, *Medeni Usul Hukukunda Hukuki Dinlenme Hakkı*, Ankara, 2003, s.98.

2. Literature Review

2.1. The Concept of Representation and the Scope of Mandate:

2.1.1. In General

Each of parties follows proceedings on one's own or via an agent. What really matters is that legal transactions are made by persons themselves. However, this may not be possible due to other reasons or relevant person can use this right by assigning someone or some people⁴. Taking care of these possibilities, the legislator has settled regulations related to legal transactions made by representative in the Art. 40 of the Turkish Code of Obligations and later on.

There are two types of representation in lawsuits and procedures: legal representation and voluntary representation. Legal representation is that in lawsuits, those not having legal capacity are represented by legal representative. On the other hand, voluntary representation is that representative follow proceedings upon represented person's will. Representation is a unilateral legal transaction. To be able to founded representation, it is not necessary that there is a contract between representative and represented, nevertheless, in general, authority to represent is given by agent contract⁵. While agent contract is settled in the Art. 502 of the TCO and later on, power of agent is settled in the Art. 71 the Code of Civil Procedure and later on. The Art. 72 of the CCP refers to the articles related to representations in the TCO.

2.1.2. The Relation Between Authority to Represent and Agent Contract

Authority to represent is independent from agent contract. Invalidity of agent contract does not mean invalidity of authority to represent⁶. Thanks to authority to represent, representative acts in the name of represented and settles external relation with third person in the name of represented. Agent contract regulates internal relation between agent and principal, and brings legal liabilities to agent⁷. Provisions related to agent contract are found between Art. 502 and Art. 514 of the TCO. The contract between agent and principal predicts that agent has responsibility to act in accordance with principal's will and favor. Agent's obligation of acting cannot be restricted with time limit and not reaching willed consequences is not agent's responsibility. Agent contract is consensual and bears perdurable obligation. Furthermore, it is not a perfectly bilateral contract, since performance related to fee is not one of essential facilities, in other words, fee is taken if it is settled on the contract or practice⁸. Provided that parties determine paying fee in accordance with contract or practice, the contract becomes a perfectly bilateral contract. In addition, authority to represent is bounded with time limit, whereas agent contract cannot be bounded⁹ with a time limit. Agent incurs obligation of acting notwithstanding a time limit¹⁰.

Furthermore, we think it is beneficiary to mention that the concept of attorney agreement differs from agent contract and authority to represent. Attorney's agreement is a new concept and it is not regulated clearly in laws. Art. 164 of the No. 1136 Attorney's Act, there is the concept of "wage agreement". However, it does not seem to be possible to say that this article describes attorney's agreement.

⁴Kuru/Arslan/Yılmaz, s.257; Abdurrahim KARSLI, Medeni Muhakeme Hukuku Ders Kitabı, İstanbul: Alternatif, 2.B, 2011,s.308.

⁵Haluk Tandođan, Borçlar Hukuku Özel Borç İlişkileri, C.II, Ankara 1987,s.182.

⁶Fikret Eren, Borçlar Hukuku Genel Hükümler, İstanbul: Beta, 10.bası,2008,s. 399; Kemal OĐUZMAN, Turgut ÖZ, Borçlar Hukuku Genel Hükümler, 5. B, İstanbul 2006, s. 171.

⁷Tandođan, s.183; Fahrettin Aral, Borçlar Hukuku Özel Borç İlişkileri, 7. B., Ankara 2007,s.396; Eren, s.398; Ođuzman/Öz, s.171; Kuru/Arslan/Yılmaz, s.262; Şakir Berki, Borçlar Hukuku Özel Hükümler, Ankara, 1973,s.156.

⁸Cevdet Yavuz, Türk Borçlar Hukuku Özel Hükümler, 7. Baskı İstanbul 2007, s. 608; Tandođan, s.356; Fahrettin Aral, Hasan Ayrancı, 6098 Sayılı Türk Borçlar Kanunu'na Göre Hazırlanmış Borçlar Hukuku Özel Borç İlişkileri, 9. Baskı Ankara 2012, s. 387.

⁹Ođuzman/Öz, s. 178.

¹⁰Tandođan, s. 182; Yavuz, s. 608.

Attorney's agreement is an onerous, sui generis and synallagmatic contract that primary obligation is legal aid and the matter of legal aid is described in the Art. 2 and Art. 35 of the Attorney's Act. The scope of agreement is determined by parties. Its subject is performing a specific work or serving. Advocacy may be performed by persons having monopoly right according to the Art. 35 and Art. 63 of the Attorney's Act¹¹.

Even if attorney's agreement and agent contract resemble each other in terms of a lot of facilities, they have different facilities in terms of fee, written form requirement, liabilities of parties, shutdown, and retirement. Agent contract in comparison with attorney's agreement is in a general character. The boundaries of attorney's agreement are determined according to the Attorney's Act. Provisions of agent contract in the TCO may be implemented about subjects that are not regulated in Attorney's Act.

2.1.3. The Scope of Mandate

The Art. 504 of the TCO that settles the scope of mandate holds that the scope of mandate is determined according to the quality of act, if it is not frankly predicted in the contract. If the scope of mandate is taken into consideration, there are two types referred to as general and special.

If it is containing of authority to perform all kind of legal transactions that legal order allows without any restriction, except donation and sale, there is general mandate¹². If it is containing of authority to perform one or more particular act, there is special mandate. Agent entitled with general mandate can fulfill ordinary legal transactions. He/she has to be authorized specifically in accordance with the Art. 504 of TCO to be able to sue or defend in the name of her/his principal in a lawsuit¹³.

As regards the procedural law, this difference refers to as general warrant of attorney and special warrant of attorney¹⁴. The scope of attorney ship is that principal gives authority against third parties to agent. Moreover, it is to state that issuing warrant does not mean there is an agent contract between agent and principal. It only denotes agent has authority to represent principal, so agent does not have any obligation. Provided that person sets warrant for agent to represent him/her in all lawsuits that principal sues or is tried, there is general warrant of attorney. If principal sets warrant for agent to follow one or more particular case, there is special warrant of attorney¹⁵.

As setting general warrant does not give liberty to act without principal's knowledge and prescription, agent does not have to represent principal in each lawsuit brought in the name of principal¹⁶. In lawsuit brought against client, it must be obtained permission in order to be able to notify general attorney of lawsuit petition¹⁷. Additionally, lawsuit petitions brought against client must be notified per say client so that person can choose agent whom he/she wants represent oneself¹⁸.

¹¹Meral Sungurtekin, Avukatlık Mesleği Avukatın Hak ve Yükümlülükleri, (Tez), Ankara Üniversitesi Sosyal Bilimler Enstitüsü, 1994, s.167; Ahmet İYİMAYA, Temsil Yoluyla Bağıtlanan Avukatlık Sözleşmesi için Özel Yetkinin Varlığı Zorunlu mudur? Tür. Bar. Bir. Der. 1993 S.3-4.

¹²Eren, s.400; Oğuzman/Öz, s.176; Tandoğan, s.218;Kuru/Arslan/Yılmaz, s.263.

¹³Baki Kuru, Hukuk Muhakemeleri Usulü, C., II, 6. B., İstanbul 2001, s. 1252; Üstündağ, s. 403; Kuru/Arslan/Yılmaz, s.263.

¹⁴Kuru/Arslan/Yilmaza, s. 263; Pekcanitez/Atalay/Özekes, s. 198.

¹⁵Kuru/Arslan/Yılmaz, s. 263.

¹⁶Postacıoğlu, Medeni Usul Hukuku Dersleri, s. 325;Üstündağ, s. 404.

¹⁷Üstündağ, s. 404; Postacıoğlu, medeni usul hukuku dersleri s. 325; Kuru/Arslan/Yılmaz, s. 269.

¹⁸Postacıoğlu, Medeni Usul Hukuku Dersleri, s. 325 vd.

2.2. Notifying Agent in Acts Followed by Agent

Notification is made to the last known address of acceptor whom notification will be made¹⁹. Art. 11 of Notification Law brings that notification is made to agent in acts followed by agent. This provision is compulsory²⁰.

According to the art. 35(1) of the Attorney's Act, it is necessary that warrant settled by notary in the name of attorney registered in the bar, in case of that persons are represented by agent in lawsuits or executive proceedings. In the file which does not consist of warrant in the name of attorney, notification cannot be made in the name of agent. Perchance it is made; it is easy to reach the result of invalidity of notification²¹. Notification is made to the address written in the warrant²².

Agent who does not present his/her original warrant or certified copy of it cannot perform any procedural action or sue. Exceptionally, in case of damage arising from delay, the court can consent proceedings by agent on the condition of that presentation of warrant in a time limit determined by the court. The possibility to miss response time in a lawsuit filed or to pass foreclosure or prescription in a lawsuit that will be brought until preparation of warrant can be given as examples to situations that damage arise from delay. Nevertheless, if warrant is not given in determined time limit or principal does not present a petition showing acceptance of actions made by agent, proceedings are deemed not to have occurred²³.

Warrant must be duly issued. In accordance with the Art. 27 of Attorney's Act, the bar stamp which must be founded on warrant is not attached to warrant, proceedings cannot be established. In prescribed time, if the deficiencies are not remedied, notification has to be made to principal²⁴.

Notification must be made to agent's true address²⁵. Otherwise, notification is unlawful. Decision given before getting to know consequence of notification is illicit. Notification address of attorney cannot be expressed as bar

¹⁹Kuru/Arslan/Yılmaz, s.798; Seyithan Deliduman, Tebligat Hukuku Bilgisi, Ankara: Yetkin Yayınları,2002 s.23.

²⁰YargHGK11.5.2005 E. 2005/3-304 K. 2005/326 vb bkz; Yarg.CGK. 24.3.2009,5-56/70, Yarg. 14.HD. 20.3.2009,703/3547,21.HD 16.3.2006,13340-2438, Yarg. HGK.11.05.2005, 3-304/326, bkz., Kazancı İçtihat Bilgi Bankası.

²¹"...Lawsuit petition was notified to attorney although whether the attorney is agent defendant creditor cannot be understood. In the files, there is not warrant expressing attorney is agent of the defendant creditor in lawsuit. In this case, since judgment without duly notifying the principal of lawsuit petition and assigning the party restricted right of defense there is procedural mistake and decision given by judicial authority considering of the merits is contrary to the law and procedure." Yarg. 15.HD19.3.1990, 7/1207. "... participated in following process....belonging to the agent... dated a copy of warrant has been presented in the file. In this case, it is compulsory that laegal document is notified obligator in accordance with the Art. 11 and Art.41 of the Notification Law..."²¹ Yarg. 12HD.20..1987, E.3397,K.367, vb bkz; Yarg. CGK 27.11.2007,9-175/250; Yarg. 2.HD 21.01.2003, 14475/648, Yarg. 2.HD 17.02.2003,735/1914, bkz., Kazancı İçtihat Bilgi Bankası.

²²Timuçin Muşul, Tebligat Hukuku, İstanbul: Güncelleştirilmiş Genişletilmiş 4. Baskı, Adalet Yayınevi, 2012,s.144; Ahmet Uğur Turan, Tebligat Hukuku Tebligat Suçları ve İlgili Mevzuat, Ankara: Seçkin Yayıncılık,2006,s.110; KARSLI, s.398;" Notifying principal is contrary to the law whereas notification is made to agent authorized for following the lawsuit at every stage." İBK.1.7.1940, 7/75, bkz., Kazancı İçtihat Bilgi Bankası.; Yılmaz/Çağlar, s.192-204; Yarg. 15. HD.19.3.1990, 7/1207.

²³ Karşli, s.398; Kuru/Arslan/Yılmaz, s. 265.

²⁴"...On the warrant given by plaintiff's and defendant's counsel bar stamp is not found. Pursuant to the Art. 27 of the AA changed with the Law No. 4667 these warrants cannot be basic of transactions to remedy the deficiencies notifying the agent in present of ten days peremptory term; otherwise, notifications made become invalid and novating them making to the principal..." Yarg.2.HD. 23.3.2009, E.2009/581 K.2009/5272, bkz., Kazancı İçtihat Bilgi Bankası.

²⁵Ahmet Cemal Ruhi, Tebligat Hukuku, Ankara: Seçkin Yayıncılık,2006,s.361;"...notifying an address different from address presented in the lawsuit petition, ordering nonsuit without any information and document about receiving notification and

where attorney belongs to since attorneys have to have office. Their notification addresses are their offices addresses. If notifications are returned from address stated by attorney, address research is asked for the bar where attorney belongs to²⁶.

If notification is not made to agent due to change of entitled agent's address, notification must be made to new address in the direction of bar's answer asked for bar by research per curiam²⁷.

As required by the Art. 38 of Notification Law in lawsuits followed by agent, agents can make a notification to the other against receipt. In accordance with the Art. 56(4) of the Attorney's Act, attorneys, in actions substituted, can notify the other party of legal paper and documents through relevant judicial authority without any decision of this judicial authority. A copy of notified papers and documents is attached to relevant judicial authority's file on condition of paying compulsory levy, tax and charge²⁸. To illustrate, one of parties' agents can notify opposing party's attorney of papers related to lawsuit.

Since general agent does not have liability to represent the principal for each lawsuit, general agent cannot be managed to accept every notification²⁹. For this reason, in terms of present lawsuit, it is useful that notification is made to defendant principal until whether general agent follow the lawsuit or not is clear³⁰. In case of that general agent does not accept notification, notification will become null³¹.

For notifications made to the government and relevant public legal person, answerer is treasury solicitor³².

Novation petition and invitation of hearing which denotes date of hearing are notified attorney. If attorney's office is not in judicial locality, notification of invitation is made by rogatory court³³.

hearing..." Yarg. 6.HD 18.4.1980, 12343/3525,vb bkz; Yarg.12.HD. 12.10.2010,E.2010/23961 K.2010/22949; Yarg. 11.HD. 6.5.2002,E.2002/656, K.2002/4347, bkz., Kazancı İçtihat Bilgi Bankası.

²⁶Yılmaz/Çağlar S.208.

²⁷Muşul, Tebligat Hukuku,s.155; "...notification of preliminary proceedings report is refunded obligator's counsel with paraphrase of moving out of the address, so it is understood that notification is made to the same address pursuant to the Art. 35 of the Notification Law; however, owing to necessity for attorneys to registered in a bar, obligator's attorney's address must be asked for the bar by the court and notification of preliminary proceedings report must be made to last known address in accordance with the provisions of the Notification Law..."12.HD. 11.09.2012 7456/25972; vb bkz;; Yarg.19.HD 9.3.2006, E. 2006/6990 K.2006/2329; Yarg.19HD. 18.2.2008, 10648/1394; Yarg.11HD 13.4.2006,1907/4740,bkz., Kazancı İçtihat Bilgi Bankası.

²⁸Muşul, Tebligat Hukuku, s.80; Turgut Uyar, İcra Tebliği (İİK. 21), ABD, 2013/4, s.159. Kuru/Arslan/Yılmaz, s.796.

²⁹Üstündağ, s. 404; Postacıoğlu, Medeni Usul Hukuku Dersleri,s.325; Kuru, b./Arslan, r./Yılmaz, E, s.263.

³⁰"...assignment of a person as general agent, there is no liability follow all lawsuits without the principal's order... Hence, notifying attorney A. As defendant's counsel and continuing hearing despite the prevention is contrary to the law and procedure..." Yarg. 2.HD 7.6.1971,3771/3698;"...authorizing agent with general mandate, without client's order liability to follow all lawsuits cannot be given to the agent. For instance, obligator commenced execution proceedings even if he/she rejects proceeding via the agent, in terms of withdrawal of appeal brought by creditor since whether obligator's agent is authorize to follow this lawsuit or not lawsuit petition must be notified the principal instead of proxy. Otherwise, duly assignment of the party cannot be provided. Thus, whether a proxy have authority to represent or not it must be researched by the court ex officio..." Yarg.15.HD 02.11.2004 2004/2041E. 2004/5550K.,bkz., Kazancı İçtihat Bilgi Bankası.

³¹Timuçin MUŞUL, Medeni Usul Hukuku, Ankara: Adalet Yayınevi,2012,s.218; TURAN, s.111; YILMAZ/ÇAĞLAR s.210;MUŞUL, Tebligat Hukuku, s.144; KURU/ARSLAN/YILMAZ, s. 800.

³²Yılmaz/Çağlar, s.212; Turan, s.111;"...treasury has been represented by the attorney in the lawsuit. Writ as not notified treasury solicitor. Decisions given as a result of the lawsuit followed by the attorney must be notified attorney pursuant to the Art. 11 of the Notification Law. It is contrary to the law that notifying bookkeeper of the writ without certification of predicted conditions in defiance of the Art. 13 of the Notification Law..." Yarg. TD 27.6.1967, 1961/1765. vb bkz;Yarg. 7.HD 14.2.1974, 8598/647; bkz., Kazancı İçtihat Bilgi Bankası.

2.3. Notification in Case of That More Than One Agent is Founded

In case of that person is represented by more than one agent, it is enough that notification is made to one of these agents. Art. 11(1) of the Notification Law holds that if notification is made to more than one agent, date of first made notification is deemed to principal date of notification. Perchance notification is made to more than one agent, first made notification is taken as a basis. Legal consequences depending on notification result beginning from date of first made notification³⁴. There is no notification requirement for all agents. If each notification date had been taken as a basis, arisen rights in favor of opposing party would have been lost owing to expiration³⁵. That in lawsuits followed by more than one agent, date of first notification is taken as beginning of legal proceeding for opposing party is legal arrangement available to procedural economy and execution of speed and operational functions. Otherwise, in terms of part represented by more than one agent that each of notifications is beginning of counter legal proceeding for other party is tiring and abusive and causes chaos for judicial activities. Beginning of legal process with first notification is available to conduct of judgment and provides speediness. Provided that more than one agent establishes mandate relation, notification is made to agent on duty at date of notification³⁶.

In accordance with the Art. 75 of the CCP, if more than one agent is assigned in a lawsuit, each agent can exercise power given to him /her independently and separately from other agents. Contrary restrictions are invalid in terms of other party. In case of that more than one agent is given power at the beginning of lawsuit, each of them may execute procedural actions as regards power on their warrant independently of each other. However, in case of that a different agent is later assigned in the same procedural action or lawsuit, principal has to receive written approval from first agent. Principal can demand this permission by writing a script which will be notified or submitted and giving at least a week duration. Agent is deemed to consent, if he/she does not give any answer in the meantime. When agent does not give approval, warrant of first agent is expired and agent is entitled to gain fee according to

³³Muşul, Tebligat Hukuku, s.153;“...11.12.2003 dated novation petition and invitation of hearing notified T... Dayanıklı Tüketim Malları San. Ve Tic. Ltd,Şti. However, since in actions followed by the agent notification must be made to agent according to the Art. 11 of the Notification Law and this provision is peremptory, notifying the principal is not deemed to be valid. (10.07.1940 and No. 7/75 Decision of Joint Chambers). According to the clear provision of the art.73 of the CCP, the court cannot decide without hearing or giving invitation for parties to annunciate their pleadings and defense except particular situations predicted by the law. For this reason, it is compulsory that in compliance with the provisions of the Notification Law and the relevant regulation novation petition and invitation of hearing are notified mentioned defendant to be benefited from right of defense explained in the Art. 36 of the Constitution. Delivering a judgment in written form by continuing the hearing in the absence of the defendant and ignoring this aspect concerning public order is contrary to the law and procedure and this is the reason of annulment...” Yarg21.HD.16.3.2006, E.2005/13430,K.2006/2438;vb bkz.Yarg. 6.HD 24.4.2006,E.2006/2213, K.2006/4389.,bkz., Kazancı İçtihat Bilgi Bankası.

³⁴Muşul, Medeni Usul Hukuku, s.217;MUŞUL, Tebligat Hukuku, s.142; Turan, s.111; Halil Kiliç, Hukuku Muhakemeleri Kanunu, Ankara: Adalet Yayınevi,2011,Cilt1,s.1224; Kuru/Arslan/Yılmaz, s.270;“In lawsuits followed by agent, notifications are made to agent (No. 7201 Art. 11 of the Notification Law). If there is more than one agent of a person, it enough to notify one of them. There is not necessity to notify all of them. In case if that notification is made to more than one agent, date of first notification ise deemed to be the beginning of applying right to appeal. Therefore, prescribed terms starts to lapse. Otherwise, time lapse causes damage of rights arisen in favor of the other party...”Yarg. 2.HD. 6.6.1978 E. 1978/4236 K.1978/4546; vb bkz; Yarg.2.HD 16.6.1986, E.1986/3954, K.1986/5995; Yarg.11.HD. 5.2.2007, E. 2005/13969 K.2007/1274; Yarg. 2.HD 16.6.1986, E.1986/3954, K.1986/5995.;

³⁵1.HD 08.03.1994 T. E.1994/7364 K.1994/2972, bkz., Kazancı İçtihat Bilgi Bankası.

³⁶Yılmaz/Çağlar, s.222;“...In acts followed by agent, it is enough to notify one of them, if there is more than one agent (the Art. 64 of the CCP, the Art. 11 of the Notification Law). In concrete case, the attorney who wants to participate in the lawsuit as the plaintiff later wanted to be notified decision to the address written in the petition by stating to appeal before the notification of the decision. This attorney of the plaintiff cannot accept notification made to former attorney as valid after this attorney revealed his/her will and wanted to be notified the decision. Besides, the court needed to notify mentioned attorney by taking this situation into consideration. Therefore, it has passed to substantial examination by deciding that the plaintiff is in the period of appeal unanimously...” Yarg.19.HD. 24.9.1998 E. 1998/4111 K.1998/5480,bkz., Kazancı İçtihat Bilgi Bankası.

Art. 172 of the Attorney's Act. Initially or later, in the case of that more than one agent follows lawsuit with written approval of first agent, each of them can singly follow the lawsuit and fulfill procedural actions³⁷.

In accordance with the Art. 73(2) of Code of Civil Procedure embodied that restrictor actions aimed at restriction of agent's power is invalid with respect opposing part, demanding notification from the agent whom principal assigned, for example an attorney in Rize, does not concern for notifying authority. This is interested in internal relation between principal and agent³⁸.

Pursuant to the Art. 47 of Notification Law that brings person representing persons more than one is given a copy of document which will be notified. In so far as, person constituted only for being informed must be given copies as number of persons designee represents, agent who represents persons more than one is given a copy of document which will be notified. However, agent whom power is given only for being informed has to be granted copies of document as number of persons represented³⁹.

2.4. When is Notification Made to Agent

The provision that in actions followed by an attorney notifications made to the attorney's office are made in official work days and hours is predicted is added to the Art. 11 of the Notification Law with No. 6099 Notification Law and Law About Amendments to Some Laws. In addition, the Art. 18 of the Ordinance About Applying of the Notification Law dated of 25 January 2012 brings that in acts followed by agent, notification is made to the agent and notifications made to the agent's office are made in official work days and hours.

In present Notification Law, in what days and hours notification is made is not regulated. It is aimed at preventing loss of right due to the fact that attorneys are not founded in their offices in official work days and hours with this amendment passed in 2011. Thus, that agents avoid being informed except work days and hours reached legal basis. These official work days and hours express work days and hours of the officer who will notify. That attorneyship is self-employment can be reason of that work hours of attorney are not taken as basis. In this manner, it may not be possible to notify agent on Saturday or Sunday⁴⁰. Eventhough it is criticized by attorneys, it is possible to notify during judicial recess pursuant to the Art. 103 of CCP. Notification Law only regulates notification in work days and hours and there is not any provision about not being notified during judicial recess⁴¹.

2.5. Notifying Worker, Intern or Clerk of Agent

In the case of that attorney who will be notified is not founded at the Office, notification is made to labor at the attorney's office in the name of the attorney⁴². Nevertheless, to exemplify, notifications cannot be made to persons such as an attorney at next flat, another attorney at the office, labor work out of the attorney's office. Otherwise, notification becomes unlawful⁴³.

37 Kuru/Arslan/Yılmaz, s.270.

38Muşul, Tebligat Hukuku,s.142;MUŞUL, Medeni Usul Hukuku, s.217;Yarg.8.HD.,07.07.1981, E.1981/6626,K.1981/7612, bkz., Kazancı İçtihat Bilgi Bankası.

39Muşul, Tebligat Hukuku, s.143.

⁴⁰Ahmet Cemal Ruhi, Tebligat Kanunu'nda Yapılan Değişiklikler, Hukuk Muhakemeleri Kanunu ve Borçlar Kanunu Sempozyumu, Ankara Barosu Yasa İzleme Enstitüsü, Ankara: Başak Matbaacılık, 24-25 Mart 2011,s.9.

⁴¹Muşul, Tebligat Hukuku, s.15.

⁴²Uyar, s.162; Nazif Kaçak, Tebligat Kanunu Şerhi ve Tüm Yönleriyle Tebligat, Ankara: Seçkin, 2004, s.108-109 ;Yarg.19. HD. 11.02.2010 E.2009/10955 K.2010/1321,bkz., Kazancı İçtihat Bilgi Bankası.

⁴³Kaçak, s.108-109; "...In the Art. 17 of the Law No. 7021 Notification Law, it is stated that notification is made to the workers or officers there, if persons committing regularly job and trade are not founded in their workplace. Another attorney worked together in the same office cannot be accepted as one of workers or officers..." Yarg.3 HD 19.9.1994,10735/11486, bkz., Kazancı İçtihat Bilgi Bankası.

Thanks to the Art. 37 of Notification Law that denotes announcing day and hours of following hearing to attorney's clerks and interns whose roles are confirmed by judicial authority during hearing is under the heel of notification has brought an exception to notifying the agent. However, this exception is brought for only announcement of hearing's date by the judicial authority. Besides this exceptional situation in the Art. 17 and the Art. 37 of the Notification Law clerks and interns are not entitled to accept notification in the name of the attorney. Since Out of these exceptional situations, notification made to clerks and interns in the name of the attorney is contrary to the law, it is accepted as unlawful notification⁴⁴.

2.6. Authorization Someone Who is Not Attorney to Accept Notification

Persons can designate only agent to accept notifications. However, notification to someone, who is not attorney, given this power cannot go beyond being informed and in practice, such assignment will not be reasonable because this person cannot other act related to lawsuit⁴⁵.

The basic reason of notification is providing that acceptor of notification is informed and fulfill a particular act. Since someone who is not attorney cannot perform procedural actions, entitling a person only for notification has no meaning in practice despite the fact that is possible institutionally. Indeed, the Supreme Court held that it has understood that to follow actions allocation of widow's pension from her husband died during the military service, the plaintiff assigned a scrivener who is not an attorney as general agent and the decision related to rejection of application to the ministry was notified this principal. Because of the fact that in compliance with the Art. 11 of the Notification Law and the Art. 15 of the Regulation of Notification, notification made to general agent who is not attorney is assumed admissible, according to the Art. 67 of the Law No. 521, ninety days duration was lapsed and dismissal of the action due to time lapse...". It is clear that this situation causes important loss of rights.

2.7. Notifying in Case Termination of Mandate

Mandate relation terminates in cases of dismissal, resignation, death of principal, bankruptcy, and loss of capacity⁴⁶. Agent can resign from general mandate with a unilateral declaration of intention (Art. 81 of CCP/Art. 41 of AA). Duty of mandate ends with resignation. Consequences of resignation of agent is regulated in the Art. 41 of the AA in terms of internal relation, whereas it is regulated in the Art. 81 of CCP with regard external relation⁴⁷. When attorney withdraw from mandate on the condition of bearing expense, he/she must notify the principal of notification explaining this situation through the judicial authority. Otherwise, all announcements are continued to make to the attorney. Competence of the attorney who withdraws from following a particular action or defense may continue during fifteen days beginning from the date of notification explaining the situation of withdrawal in accordance with the Art. 41 of the AA and the Art. 81 and the Ar. 82 of the CCP⁴⁸. Resignation of agent does not have effect on duration started to lapse with notifications made before⁴⁹. Additionally, the Art. 39 of AA brings liability that agent keeps documents notified oneself during three years since termination of mandate. If the agent informs the principal to deliver the documents, the duration of the liability of keeping is three months.

⁴⁴Muşul, Tebligat Hukuku, s.79; "...It is understood from the scope of the file that remittitur was notified the person named Eyüp Karagül instead of the plaintiff's attorney. The plaintiff's attorney has claimed that this person is not his/her co-worker and he is not authorized to be notified in the name of the attorney. In the Art. 11 of the Notification Law it stated that in actions followed by agent notification is made to agent. In the Art. 15 of the same Law, there is provision that predicts if there is more than one agent of a person, notification is made to one of them. In this case, it has to research whether the person named Eyüp Karagül is authorized to be notified or not. If it is understood that he is not authorized to be notified, it must be continued to notify the plaintiff's attorney again. It is not found acceptable delivering a judgment in written form with deficient examination and without research in mentioned aspects..." Yarg 3.HD 9.3.2004 E. 2004/1858,K.2004/1915, bkz., Kazancı İçtihat Bilgi Bankası

⁴⁵Turan, S.111; Yılmaz/Çağlar s.216.; Bilal Can, Zübeyr Bülbül, Veysel Dağışan, Emlak Vergisi Hukuku, İstanbul: Şifre Yayınları,2012,s.445.

⁴⁶Yılmaz/Çağlar, s.224. Turan, s.111, Ruhi, s.124; Muşul, Tebligat Hukuku, s.146.

⁴⁷Kuru, Usul II, s. 1309; Kuru/Arslan/Yılmaz, s.271.

⁴⁸Kuru/Arslan/Yılmaz, s.271; Turan, s.111, Ruhi, s.124, Muşul, Tebligat Hukuku, s.146.

⁴⁹Kuru, Usul II, s. 1313.

Procedural actions such as notification, duration etc. made to the agent by the judicial authority or the counter party may not be affected by resignation of the agent in internal relation until resignation of the agent reach the counter party or the judicial authority. Hearing may not be delayed due to resignation of the agent⁵⁰. In the case of that the agent announces his/her resignation in the course of hearing or in written form before the hearing, the court make notifications to the principal instead of the agent⁵¹.

In accordance with the Art. 81 of the Code of Civil Procedure, when the agent is dismissed, it is not possible to notify in the name of the agent after the fact that letter of dismissal is reached to the court or dismissal of the agent is written to minutes. In case of notifying, notification is not duly and legally made⁵². Until dismissal of the agent reaches to the court or the opposing party, procedural actions made to the agent by the court or the counter party may not be affected by resignation of the agent in internal relation⁵³.

In case of loss of capacity of the agent such as senility, mental illness or infirmity, and conviction, because of the fact that the attorney will not come to the court, notification has to be made to the principal instead of the agent⁵⁴. The Art. 32 of the Regulation of Notification predicts that someone who has no possibility to communicate the others due to mental illness, mental infirmity, or another disease, deafness, blindness, and dumbness is deemed to be noncompetent.

In cases of death of the attorney, dismissal or temporary incapacity, pursuant to the Art. 42 of the AA, the president of the bar assign an attorney to follow actions temporarily on the condition of receiving demand of relevant persons or written approval of parties ordering work. Notifications are made to assigned attorney. If there is not any assignment, notification is made to the principal⁵⁵.

Relation of mandate terminates with the death of the principal according to the Art. 514 of the TCO. The agent cannot file a lawsuit or follow the brought lawsuit in the name of the deceased principal. If the principal dies during trial after the lawsuit is filed, the court must notify inheritors⁵⁶. Analogical execution of the Art. 513(2) of the TCO

⁵⁰ "... since with resignation of the agent, mandate was terminated, resignation must be announced to the principal according to the Art. 68 of the CCP. The provision of that after the resignation mandate continues during fifteen day in the Art. 41 of the AA regulate internal relation between attorney and client, it does not affect external relation between agent and the court or the opposing party..." bkz, Kaçak, s.104.

⁵¹ Kuru/Arslan/Yılmaz, s.271-272; "...Right to defense is one of the constitutional rights. Resigned agent granted expenditure of notification, necessary actions must be completed without consideration of the merits before concluding case with notification defendant principal of petition for resignation..." 9.HD. 13.2.2002, 17461/2729, bkz., Kazancı İçtihat Bilgi Bankası

⁵² Yılmaz/Çağlar, S.224; Turan, s.111;

⁵³ Kuru/Arslan/Yılmaz, s.272; "...The decision of deferring of pursuance was notified the plaintiff's attorney on 17 November 1975 and this attorney acknowledged that her/his client dismissed oneself with a petition sent to the court of enforcement at the same time. However, mentioned petition was not notified defendant creditor. According to the Art. 68 of the Procedure, as long as agent acted in the name of the client does not inform the opposing party about resignation or dismissal by registering in seizure or notifying, resignation or dismissal has no effect on the other party. Therefore, it has started at that time because of continuing of mandate during seven days from the notifying the plaintiff's attorney of the decision of deferring pursuance on 17 November 1975..." Yarg. 13.HD 27.1.1977, 226/643, bkz., Kazancı İçtihat Bilgi Bankası

⁵⁴ Yılmaz/Çağlar, S.225; Kuru, Usul II, s.1326; Kuru/Arslan/Yılmaz, s.273; "...Since that the convicted attorney cannot come into the hearing is usual the defendant's attorney who must be bonafide should have notified the plaintiff principal..." Yarg 5.HD 8.7.1969, 3398/4070;vb bkz; Yarg İİD 6.4.1970, 3309/3667, bkz., Kazancı İçtihat Bilgi Bankası

⁵⁵ Turan, s.111; Yılmaz/Çağlar, s.225.; Ruhi, s.126; Kuru/Arslan/Yılmaz, s.273; "...It cannot be made mention of expiration in the rectification because it has been decided that notification is made to the principal due to not notifying the agent and it has not been determined in assignment of another attorney temporarily..." Yarg.İİD 6.4.1970,3309/3667,bkz.,KazancıİçtihatBilgi Bankası

⁵⁶ Kuru/Arslan/Yılmaz, s.273; KURU, Usul II, s.1330.

constitutions exception of this situation. If termination of the mandate endangers advantages of the deceased, the agent has liability to continue performance of the mandate. In case of the fact that the agent accepts the notification without knowing fact of death, notification is valid⁵⁷. Furthermore, relation of mandate terminates in cases of absence of agent, loss of capacity, termination of legal personality of principal who is a legal entity⁵⁸.

2.8. Cases That Notification Must Be Made to the Principal in Lawsuits Followed by Agent

Notification made to the attorney is deemed to made to the principal. However, in some situations, there are notifications which have to be made to the principal. To illustrate, in case of the fact that the principal must be per say founded in the hearing such as oath⁵⁹ and arraignment⁶⁰ that means the party per say interrogated, notification has to be made to the principal instead of the agent. If actions subject to notification bring serious legal consequences, notification must be made to the principal. According to the Art. 171 of the CCP, since person who will be interrogated must be appeared in court personally and otherwise, he/she is deemed to admit facts subject to the arraignment, it is ensured that notification is made to the principal in situations bring important results for the person even if he/she is represented by the agent⁶¹. In divorce suits, warning about desertion is sent to the defendant instead of attorney. Notification must be made to the principal if challenge of judge is received based on demand of the principal. If in sale of confiscated goods bailiff determines that notice of sale is notified obligator, notification must be made to not only agent but also principal. For an execution order to arise criminal conclusion, it must be notified both the agent and the principal⁶². For instance, if it is started executive proceedings for a person who does not declare property, notification must be made to the principal to be able to punish acceptor⁶³. In the case of the fact that notification is made to the principal, the obligator cannot be punished by holding responsible⁶⁴. Because acceptor of transactions predicted in second and fifth paragraphs of the Art. 68/a of the Bankruptcy and Enforcement Law is obligator, in invitations containing of transactions within the scope of these provisions,

⁵⁷ "...The verdict is notified the attorney Ç of the defendant A on 9 April 1976 and after that, the defendant deceased on 25 April 1976. In this case, the duration of appeal has started to lapse from the date of notification made to the agent and later deceasing of the client does not require second notifying the inheritors..." Yarg. 14 HD 3.2.1977 516/696, bkz., Kazancı İçtihat Bilgi Bankası

⁵⁸ Ruhi, S.125 Turan, S.111; Yılmaz/Çağlar, S.214; Muşul, Tebligat Hukuku, s .145.

⁵⁹ "...According to the Art. 232 of the CCP, the oath is proposed to the party and it is fulfilled or returned by the party. If one of the parties is a legal entity, the oath for demonstration of the contingency concerning an action in favor of them can be fulfilled or returned by the person authorized to represent the legal entity. The invitation of the oath must be notified the defendant entity. A duty about presentation the client is not imposed on the agent. Notification made in this direction is not appropriate to the procedure. Since the invitation of oath sent to the defendant entity was returned without notification, delivering the judgment by accepting for the defendant party to avoid the oath without duly notifying has required reversal..." Yarg. 19.HD 27.6.2013 2013/7772E. 2013/12045K., bkz., Kazancı İçtihat Bilgi Bankası

⁶⁰ Ruhi, S.123; Turan, s.111.

⁶¹ "...Arraignment requires hearing of the party personally, the agent cannot be listened, even if the party follows the lawsuit via the attorney, then invitation of the arraignment must be notified oneself..." Yarg. HGK. 4.6.2003, 2003/12-385 2003/399K.,bkz., Kazancı İçtihat Bilgi Bankası

⁶² "...Correspondingly, eventhough to be able to applied the provisions concerning punishment of the Enforcement and Bankruptcy Law, execution order must be notified obligator perpetrator in compliance with the principle of individual criminal responsibility and in terms of the criminal law, without taking care of that in its file numbered as 2010/1365 Adyaman/Gülbaşı Execution Office notified only the attorney of the obligator perpetrator of the execution order, deciding on rejection of the objection instead of approval of it due to the fact that deciding on conviction of the perpetrator because of the breach of provisions of alimony in accordance with the Art. 344(1) of the EBL is contrary the Law..." Yarg.16HD 13.12.2011 2011/6583E. 2011/8833K; vb bkz,Yarg. HGK 4.6.2003, E. 2003/12-385 K. 2003/399, bkz., Kazancı İçtihat Bilgi Bankası

⁶³ Yılmaz/Çağlar, S.238; Kuru/Arslan/Yılmaz, S.273.

⁶⁴ "The order of payment was sent to the agent of the company instead of the perpetrators authorized to represent the company. There is not necessity for the perpetrators to declare property owing to this notification since notification made to the agent is invalid in offences against property and does not bind the principal. Other possibility coincides with legal practice and the principle of individual criminal responsibility." Yarg. HGK 18.11.2009 2009/6-477E. 2009/546K; vb bkz,(CGK 26.11.1990,8/328-310), bkz., Kazancı İçtihat Bilgi Bankası

acceptor must be shown as obligator. The other exception is pronouncement in the face of defender assigned by the bar upon the court's demand due to compulsory advocacy. At this stage, if perpetrator is not informed about assignment of an attorney for oneself, period for appeal may not start since pronouncement is ineffective in terms of perpetrator. Justified decision must be notified perpetrator personally. Notification and pronouncement made to compulsory defender bring legal consequences as it is made to defender entitled with warrant⁶⁵. Nevertheless, prerequisite of that is perpetrator is informed about assignment of compulsory defender. There are resident judgments⁶⁶.

2.9. Sanction of Failure to Comply With the Art. 11 of the Notification Law

In actions followed by agent, in the case of the fact that notification is not made to agent, there are different views about whether notifications results in absence or irregularity.

According to Muşul and in my opinion, in actions followed by attorney, notification is made to client is invalid and declared null and void. In the circumstances, legal consequences depending on notification may not arise. That the agent learn notified document from the principal does not make notification valid because according to the law, acceptor determined is not true and notification is made to a person except acceptor⁶⁷. Thus, notification is not unlawful. It is declared null and void. According to Kuru/Arslan/Yilmaz, this situation brings irregularity⁶⁸.

Fallacy of acceptor of notification brings absence. In other words, this notification results in absence, although notification must be made to the principal instead of agent or legal representative or it must be made to agent or legal representative instead of the principal.

For notification to be unlawful notification in the name of true acceptor is made failing to comply with the provisions of the law. Unlawful notification can be in question in terms of person notified. In accordance with the Art. 32 of the Notification Law, notification which is not duly made may become valid since the date agent states learning the transaction⁶⁹.

⁶⁵Muşul, Tebligat Hukuku, s.164.

⁶⁶"... *When the first, second and third paragraphs of the Art. 151 of the No. 5271 Criminal Procedural Law are appreciated all together; there is not any difference between defender with warrant and defender assigned with demand or defender assigned needly in terms of Criminal Procedural Law regarding the definition of the attorney who defends suspect or perpetrator in criminal procedure. In cases of that compulsory defender is assigned and perpetrator accepts or does not object to the assignment, pronouncement and notification to compulsory defender may arise all legal consequences as to made to defender entitled with warrant. In other words, in such a case, notifying the principal in unnecessary... examining of appeal will be appropriate to the justice in case of that perpetrator appeals by notifying perpetrator of the decision...*" Yarg. CGK 14.2.2012 2011/6-254E. 2012/32K, vb bkz;CGK 18.3.2008 7-56, CGK 24.11.2009 164-275 CGK 12.7.2011 155-172, bkz., Kazancı İçtihat Bilgi Bankası

⁶⁷Muşul, Tebligat Hukuku, s.151;"...*In compliance with the Art. 11 of the Notification Law, in actions followed by the agent, notification is made to the agent. While the provision predicted in the article is clear and peremptory, finalization of the decision by notifying the principal instead of the agent is impossible. Notification made in this form is not a notification contrary to the procedure mentioned in the Art. 32 of the same Law, this is completely invalid. Because in the case subjected to the lawsuit, there is no notification made to the agent and notification has not made to the agent ever, the Article 32 of the Notification Law related to unlawful notification cannot be applied...*" Yarg.14. HD 20.3.2009 2009/703 E. 2009/3547 K, vb bkz; Yarg. 12.HD. 9.7. 2002 E. 2002/14330 K. 2002/14949; Yarg.12.HD.21.1.2010 2009/19531E. 2010/1300K, bkz., Kazancı İçtihat Bilgi Bankası

⁶⁸Kuru/Arslan/Yilmaz, s.801.

⁶⁹Muşul, Tebligat Hukuku, s.151;"...*unlawful notification of order of payment sent to the attorney does nor require the invalidity of the notification but application of the Art. 32 of the NL ...*" Yarg. 12.HD. 18.10.2010, E. 2010/10850K. 2010/23611."...*In concrete case, notification was made to the defendant's attorney's address written in the writ being the basis of execution, even if notification was made according to the Art. 21 of the Notification Law because the address was closed, in accordance with the Art. 28 of the Regulation of Notification which must be applied in the case of that the address is closed it was not registered in the report by researching the reason of the acceptor's not being found in the address. Pursuant to the Art. 28 of the Notification Law, the report does not consist of the name and the surname of the officer made the notification, the notification is unlawful. Thus, with the acceptance of the complaint*

In actions followed by agent, the principle is notifying agent. If notification is made to both the principal and agent, notification made to agent must be accepted ad beginning of arising of legal consequences⁷⁰.

If that person acting as agent of one of counter parties does not have power of attorney is realized during appellate review, the Supreme Court send the decision to the court to be notified the principal without any other examining. In the case of the fact that it is not realized during appellate review, it is resort to rectification⁷¹.

In final judgments, notification must be made to the principal unless otherwise agreed on agreement because advocacy agreement terminates⁷².

3. Conclusion

For applicability of the Art.11 of the Notification Law, notification must be made after receiving warrant.

Legal consequence of notification for agent is the same as acceptor. Pursuant to notification, rights and liability to fulfill transactions arise for acceptor, the moment of arising is beginning of notification made to agent.

In the case of the fact that person is represented by more than one agent, if notification is made to one of these agents, first made notification is taken as basis. Legal consequences depending on notification may be effective since the date first notification is made.

Notification containing of invitation announced day of hearing can be made to worker, clerk or interns of attorney. Persons can assign agent except attorneys only for acceptance of notifications. However, notification to someone, who is not attorney, given this power cannot go beyond being informed and in practice, such assignment will not be reasonable because this person cannot other act related to lawsuit.

related to irregularity of the notification by the court, in accordance with the Art. 32 of the Notification Law, the date of complaint on 6 July 2009 that the obligator's attorney has been informed about unlawful notification has to be deemed to be the date of notification, so refusal of demand with written justification inappropriate..." Yarg. 12.HD. 24.10.1978, E.8418/8511, bkz., Kazancı İctihat Bilgi Bankası

⁷⁰Ruhi, s.127;"...Default judgment was notified on 29 June 1982 after 29 April 1982, in the case of that there is not legal necessity or compulsion. Upon this notification, the perpetrator who appealed with the petition dated of 2 June 1982 has missed time for appeal..." 9.CD 1.12.1982,3792/3935, bkz., Kazancı İctihat Bilgi Bankası

⁷¹Pekcanitez/Atalay/Özekes, s.571;"...There is not importance of finalization of the decision with the notification made to the agent who has not have power of attorney anymore. In this way, the decision cannot be deemed to be finalized. Then, although the plaintiff K. Y. deceased during the judgment and certificate of inheritance was presented and the relation of mandate terminated with deceasing, upon not receiving the warrant from K's inheritors or not notifying them without involvement of K's inheritors, in other words, without not providing assignment of the party procedurally, by taking care of not having authorization attorney's statement, deciding on that the lawsuit is deemed to be filed and adding annotation of finalization by notifying the same attorney out of order have not been right..." Yarg.2.HD 20.1.1998 1997/13242 E. 1998/533 K."...RETURN of the file to domestic court to be demanded the warrant from the attorney assigned for the legal aid in case of not giving to be waited for legal duration and returned after..."Yarg.8.HD.15.5.2012 2012/3860E. 2012 /4292 K.; vb bkz;Yarg. HGK 2.7.2003 2003/2-408E. 2003/467K,bkz., Kazancı İctihat Bilgi Bankası

⁷²"...after the finalization of the decision, the attorney's agreement between Attorney Mehmet Güner and the perpetrator Murat Anık terminated. In respect of the retrial, there is not a clear agreement between convicted Murat Anık and Mehmet Güner ATT and whether Murat Anık gives a new order in this direction or not is not clear. Besides, that upon notifying oneself of the decision, Murat Anık presented a petition of appeal personally and did not mention a petition of appeal given by Mehmet Güner or his name or he has an attorney decreases the possibility of existence of such an order... as a result, in case of that there is not any information or document regarding existence of an attorney's agreement with the convicted, notification made to Mehmet Güner due to the fact that he was defendant in previous judgment process and there is still relation of mandate between them based on the warrant is deemed to be invalid..." Yarg CGK 6.3.2007 2007/6-13 E. 2007/54 K, bkz., Kazancı İctihat Bilgi Bankası

With amendment of 2011, it is brought that notification made to agent has to be made during official work days and hours. Nevertheless, the other important problematic in terms of attorneys is notification made in judicial recess. The Law does not any provision related not to notify during judicial recess. Hence, any change about notification made during judicial recess is not a matter.

In cases of termination of mandate (dismissal, resignation, death of agent, bankruptcy, loss of capacity etc.), notification must be made to the principal.

Notification made to agent is deemed to be made to the principal. However, there are cases of that notifications must be made to the principal. For instance, in cases of that the principal has to be personally founded at hearing such as oath and arraignment, notification must be made to the principal instead of agent.

In accordance with the regulation in the CCP, agent even if power is not frankly given in warrant, fulfill all necessary transactions until the decision is finalized without receiving any special power, transactions related to judgment costs and execution of judgment and these transactions can be performed against agent. If regulations restricting these transaction is not founded in warrant but advocacy agreement, these regulations are valid between agent and principal and ineffective in terms of opposing party.

There are different provisions in terms of acceptance period for the agent to accept actions of notification. In compliance with the Art. 73 of the CCP that predicts power of attorney involves authorization to make all necessary actions for following of lawsuit, to fulfill the decision, to collect legal expenses, to give a receipt, and to be exposed to all of these actions until the finalization of the decision on the condition of remaining cases required to be given special power hidden, the relation of mandate does not terminate with conclusion of the case and is contains of authorization to execute resolution. According to the Art. 171 of the Attorney's Act, attorney follows the act undertaken to the end pursuant to the provisions of the law even if there is not a written agreement. Art. 24 of the Enforcement and Bankruptcy Law and afterwards Art. 76 and Art. 337 settle the necessity to notify obligator of execution order. The other about this subject is the Art. 2 of the Minimum Attorney ship Fee Tariff that predicts attorney ship fee written in this tariff for a fee of lawsuits, acts, and actions until the finalization of the decision. If there is not deal on fee in the attorney's agreement, the tariff may be applied. To be able to have right to the fee states in the tariff, the present actions must be completed or the case must be concluded.

For that person can be acceptor of notification it must be have legal capacity. Notifications made to persons without legal capacity must be made to their legal representatives who will represent them.

In notifications of transactions aimed at collection of taxes, provisions related to notification in the Tax Procedural Law are implemented whereas in judgment containing of ta disputes, provisions of the Notification Law are applied. There two types of sanctions of failure to comply with the Art. 11 of the Notification Law. These are absence and irregularity. Fallacy related to acceptor of notification brings irregularity while that notification made to true acceptor is not duly and legally made causes irregularity

According to practice of the Supreme Court, in actions followed by agent notifying agent is related to public order and it is one of the situations taken in to consideration ex officio.

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REGULATORY INCONSISTENCIES RESULTING IN EXPROPRIATORY MEASURES: THE DUTY OF THE STATE TO WARN, OR DUTY OF INVESTOR TO BE AWARE?

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Abstract:

Regulatory inconsistencies of the host state, often based on the widely or vaguely construed rules, giving a way to expansive interpretation of the investor's actions as misconduct. This allows for the regulator to impose expropriatory measures as a remedy to an alleged misconduct, distancing from responsibility for misapplication of the rule behind the ambivalent legal framework. The key question with regard to the considered problem, is whether its a state duty to inform, or investor's duty to be aware of all possible consequences, pursuant to the principle of 'prudent investor'. Complexity of the issue necessitates to tackle the problem in multifaceted way, with application of the complex of Fair and Equitable Treatment (FET) standard constituents, as transparency, legitimate expectations, requirements for consistent, stable and predictable framework.

Keywords:

Foreign Direct Investment Law, Indirect Expropriation, Regulatory Measures, Transparency

International

Irregularities inherent to the administrative systems, often being the result of application of the inconsistent laws and regulations, adopted without detailed elaboration or broadly formulated. These rules giving a way to ambivalent and unequivocal interpretation of the rule of law. This renders the regulatory authority the power to qualify the act of the investor as a breach, entitling to invoke expropriatory measures against the alleged misconduct. The obvious problem with the considered issue is that the actions of regulator does not reach the point of acting ultra vires over the rule in question. It's not excluded that such inviolability of the state may be envisaged by the legislative or higher executive authority of the state in designing the law aimed to regulate foreign investment. At this point, such intentional disorder may be even desirable for the state, striving to distant from potential claims behind the unequivocal regulatory framework. Instances of intentional ambiguities were early signified in the Joint Venture Law of the People Republic of China with its implementation regulations, that was giving a right to exercise considerable discretion in identifying appropriateness of the technology invested in Joint Venture by foreign investor.¹ The complexity of the problem suggests to examine the applicable legal framework in foreign investment law, under the independent international standards, either based on treaty or customary international law. The peculiarity of the matter is in presence of the rule in question in the national legal order, which requires consider the legal practice scrutinizing the municipal law.

The key question with regard to the considered situation is who should bear the responsibility over the consistent regulations resultant in negative consequences on the side of investor? Since the position of the state on the matter is predefined by liability of the investor for allegedly wrongful application of the rule, the due regard to the fairness requires to examine the possibility of application of independent legal order. The obvious problem there is that the dependence on national law in the case of application of regulation is inevitable that is being the source for rights

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and obligations of regulator. Reliance on national law when the matter concerned the sovereign ability to be bound by the treaty is prominently exemplified in *Yukos* case held according to the UNCITRAL Rules of Arbitration with biggest arbitration award, that was initially considered as a victory of shareholders and largest one GML in particular.ⁱⁱ However, in 2016 the Hague District Court set aside than decision based on non-ratification by the Russian Federation of the Energy Charter Treaty, which was required to perform pursuant to the national Constitution.ⁱⁱⁱ The primacy of the national law in subjecting of the state to the international legal order was exemplary in this regard. Although it is known that non-signature state to the treaty can became the ‘real party’ to the agreement by the common intention of the signatory and non-signatory parties known from in *Dornod*.^{iv} However, in the case if it’s done purposefully, for instance the attempts to transfer the national investment to a foreign company for the purpose of obtaining BIT protection, it can be qualified as an abuse of process. Seeking international remedies for pre-existing domestic dispute precluded the exercise of jurisdiction by ICSID in *Transglobal* case.^v

Viable resemblance of the considered situation with the cases having lack of transparency urges to extrapolate its rulings with regard examined problem. The landmark cases of this category are known for instance, as proceeding with transaction without authorization of investor in *Mafezzini v Spain*,^{vi} or interference of regulatory authority with the contract rights of third party, led to the failure of investor’s local partner to fulfil the contract, serving a basis for the investor’s activity in *CME v Czech Republic*.^{vii} One of the distinctive features of these cases is the active position of the state, and possibility to distinguish the cause and effect relation of the state’s action with the consequences on the side of investor. However, obvious problem of the cases with inconsistencies, that it is the investor who under the improper rule is being a person who committed wrong. Herewith the burden of responsibility over the application of the rule is shifted to the investor. Situation is aggravated by unwillingness of the regulator to define the correct model of conduct, not excluding the purposefulness of that, for reserving the right to alter the required model of conduct with regard to the activity of every particular investor.

Some recall to the considered measure can be found in the *Teomed v Mexico*, where the replacement of the unlimited license on operation of landfill with the license of limited duration, that was resultant in lack of coherence, ambiguity and transparency in relation with investor.^{viii} In *LG&E v Argentina*, the FET standard, required from the host state’s consistent and transparent behaviour, free of ambiguity that involves the obligation to grant and maintain a stable and predictable legal framework necessary to fulfil the justified expectations of the foreign investor.^{ix} There is no doubt on the close connection of transparency with legitimate expectations on the side of investor, and potentially non communication of the proper mode of behaviour or absence of instructions for unequivocal rule can be qualified as acting not transparently. This affects the legitimate expectations of the investor, who relied on the adequate effect of the rule in question, in the case if its application substantially differs from ordinarily expected by the investor. The tribunal in *Crystallex* found that arbitrariness and lack of transparency and consistency lead to the violation of legitimate expectations on the side of investor.^x

The difficulties for the investor in seeking the remedy on the grounds of legitimate expectations, is associated with its dependence on representations made from the side of the state, reasonably relied by the investor. In *Metalclad v Mexico*, state has assured that the investor had all necessary permits to operate the landfill,^{xi} more or less clear representations based on somewhat an active role of the investor. While in considered situation we have passive role of the executive body, expressed in qualification of the conduct of investor as a wrongful, based on the inconsistent rule or regulation. Another problem concerned legitimate expectations is that the reliance of investor based on the inconsistent law, may be futile in creating specific legitimate expectations, because it is widely uncertain what to rely on. In *Mamidoil* the failure to obtain necessary permits hindered appearance of legitimate expectations and lead to the rejection of FET protection, as the absence of permits precluded rising of legitimate expectations.^{xii} Although,

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granting the permits in the future, subject to the placement of bond and payment the taxes has been found as giving rise to legitimate expectations on the side of investor which requires the clarity of representations. The tribunal was sceptical on the possession of the right to permit by the investor, due to laying the matter of granting and withdrawal of licenses in the regulatory competence of the state.

The *MTD v Chile* can be exemplary in illustrating the regulatory inconsistencies where its application resulted in failure of the project of planned residential community due to inconsistencies with zoning regulations.^{xiii} The state was found liable for ‘inconsistency of action between two arms of the same Government vis-à-vis the same investor’. Although it was given a proper recognition to the investor’s duty to inform itself on the country’s law and policy in principle,^{xiv} tribunal recognized the duty of the state to apply the policies consistently, independently, and hence the act of approval of investment project by the state authority that was contrary to the urban policy of the government has breached the FET standard.^{xv} With this regard the presence of the state’s duty of consistency outweighed the duty of investor to acknowledge itself. This is pointing on higher significance of this obligation being shortcut to the effect of FET, and also outlawing the conflicting decisions of the state authorities resulted in stagnation of the investment projects. Protection under the FET is being effective even when the issue of major concern over the responsibility for the inconsistent law is being difficult to establish, or it’s may be out of the jurisdiction of the tribunal.

While the rule in question may be properly applied causing the adequate effect to the legitimate expectations of the investor, often the problem is also concerned the exorbitant application of the rule. While it is so, it’s plausible to consider the application of ‘procedural propriety’ enabled in *Middle East Cement v Egypt*, where the seizure and sale of the ship in the auction went without proper notification of the owner.^{xvi} The course taken by the tribunal may be instrumental for enabling the FET standard in the case of violation of procedural order in the process of application of the rule. In *Teemed v Mexico* one of the factors that led to the violation of FET standard was the absence of notification of the claimant on its intention that deprived the investor from taking the legitimate actions to question of the act.^{xvii} Although widely construed rule may preclude the procedural violation, however the unreasonable action taken by the regulatory authority can be scrutinized by the tribunal under independent standard, even when such notification is not required by the national law. Similarly the “due process can be without even special reference covered, at least in part, by the requirement of ‘full protection and security’ and by the rule of ‘fair and equitable treatment’”.^{xviii}

Assessment of exorbitant application of the rule is being hindered by the limitations on scrutinizing of decision making. As emphasized by *Tarcisio Gazzini*, “Investment tribunals are not meant to review or assess the exercise of regulatory powers by the host state. Quite the contrary their task is strictly limited to determining whether the host state has violated any of the limits imposed by the relevant BIT.”^{xix} The tribunal in *S.D. Myers v Canada* was categorical in this regard, findings that “tribunal do not have an open-ended mandate to second-guess government decision-making”.^{xx} The argument that the delving into decision making as such can be immaterial for the question of liability is having its merits, however there are instances when reasoning behind the process played a key role in defining the liability, through the analysis of the intentions served as a cause for actions. In situation when the reasons given to the investor was not corresponding to the actual motivation of the state as in *Bayindir v Pakistan*, it entailed finding the state acting under the bad faith,^{xxi} resulted in the breach on the side of the state.

The good faith sourced in customary international law was instrumental in screening the conspiracy of the state in relation to the investor, however the breadth of standard raising the question on its interrelation with other

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constituents of FET. In *Saluka v Czech Republic* the expectation that the state will implement its policies bona fide was included the obligation to not manifestly violate the requirements of consistency, transparency, even-handedness and non-discrimination.^{xxii} Obviously, overarching nature of bona fide can be non-conflicting and correlated with constituents of other applicable standards of treatment. Flexibility of the concept signifies that mala fides can strengthen the question on violation of FET,^{xxiii} but essentially not substantial for its recognition.^{xxiv} As it was emphasized in *Occidental v Ecuador*, the objective requirements over the consistency and transparency as constituents of FET does not depend on acting of the respondent in a good faith.^{xxv}

Regarding the inconsistency of the application of regulations, there's not much of a doubt on possibility for the investor to trigger of the petition mechanism under the national law, existent in administrative procedures of the majority of jurisdictions, as well as making the act subject to the judicial review. "Under some international instruments and domestic legislation, other states or affected persons may enforce a state's duty to protect through the quasi-judicial or judicial procedures",^{xxvi} It's presumed that administrative law of the host state will be determinative in procedural aspects of this claim. Although, it may be treated as subjecting the case to the national legal order, while the goal to achieve the balance of party's interests insists in application of independent standard. In the case when inconsistent law was intentionally designed to take advantage of undefined or not fully defined rule, departing from national legal order is having special reasonableness, with subjecting the matter to the international treaty and customary international law.

Incompliance of the actions of investor with the national law can be qualified by the state as questioning the legitimacy of the investment, in the case of presence of 'investment under national law' clause in the BIT or investment contract. The estimation of the magnitude of misconduct is necessary by the tribunal, as perceptions of regulator of this matter may be exaggerated. In *Tokeo Tokeles v Ukraine*, the minor procedural inconsistencies and incomplete registration, from the view of international tribunal does not entail disqualification of the investment from being such. The grounds for its ruling the tribunal found in the objectives of BIT, which was aiming the promotion of investment, rather than putting the investor under the undue scrutiny or disqualification by minor errors. In some extent, the fact of the registration of enterprise by the state as valid entity played in favour of that outcome. This causes a question on potential possibility for the state to be precluded from the denial of lawfulness of investment, based on the entry and establishment. It can also find some recall in the provisions of international law contending that unilateral acts and statements and conduct by the state may be a source of obligations based on the principle of estoppel.^{xxvii}

Regarding the actions of investor over the inconsistent regulations, the question appears whether the investor can also be liable for alleged misconduct based on the duty to care. The attempts to develop a sort of 'reasonable man' standard, was prominent in international investment law practice, in the context of qualification for the protection under this ground. The *Methanex v USA* was prominent by reference to concept of 'prudent investor' who could have foreseen the future changes of law, in the prospective law banning the methanol.^{xxviii} Without prejudice to the concept of prudent investor, the shift of the burden of circumspection to the investor is raising concern. Being alien to jurisdiction, investor may have inherent lack of awareness with all aspects and procedures of national law. This requirement can be overly demanding under the obligation to analyse the forthcoming not yet existent law, in varying levels of publicity to legislative process across the jurisdictions. Moreover, such analogy of reasonable man test, having its obvious state centered inclination in the foreign investment setting.

The concept of prudent investor can be contrasted with the duty of state to prevent any likelihood of improper interpretation of the regulation, in detriment to the investor, emphasized in *Metalclad v Mexico*.^{xxix} In this case having

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the reference to the 'transparency' requirement on NAFTA, Art 102(1),^{xxx} the duty of the state to warn was established as the requirement that "Once authority become aware of any scope for misunderstanding or confusion in this connection, it is duty of the state to ensure the correct position is promptly determined and clearly stated so that investor can proceed with all appropriate expedition in the confident belief that they acting in accordance with all relevant laws".^{xxxi} Herewith the duty of the state to add clarity whenever there's actual or potential place for the ambiguity is clearly established. The ambiguity of the rule, upon which the state didn't act for its elimination, can potentially overturn the inviolability of the regulator over the inconsistent rule. Such an extended responsibility of the regulatory authority is also supported by its jurisdiction, whose duty to implement the law and ensure its correct application in the area, based on its assigned competence in its subject matter. Feedback in application of laws is essential elements in governance, urging that whenever the law is faulty to the condition that needs reconsideration, it necessitates the regulatory authority to communicate it to the body enacted the law with acknowledgement of defects, for the purpose of its amendment or annulment, based on inter-state horizontal coordination of activity within the state institutions. The interstate dispute settlement under the EU IIA, provide the basic remedy can be considered as withdrawal of inconsistent provisions negatively affected on the investor.^{xxxii}

The responsibility for the absence of clarifications can be substantially raised by the change of regulatory framework. In *Occidental v Ecuador* in relation to the claim over the inconsistent practice of the state authorities in reimbursement of VAT, the violation have been caused by the important change of the legal framework on the investor and unsatisfactory and thoroughly vague clarifications from bodies in duty.^{xxxiii} The important factor in considered case was that the alternation of legal framework prevented the entitlement of investor to the envisaged benefits. "Meeting the investor's central concern of legal constituency, stability, and predictability remain a major, but not the only ingredient of an investment-friendly climate in which the host state in turn can reasonably expect to attract foreign investment."^{xxxiv} This requirement is also embodied in BIT practice, as "Each party shall maintain in its territory a legal framework apt to guarantee to investor the continuity of legal treatment, including the compliance, in good faith, of all undertaking assumed with regard to each specific investor".^{xxxv}

"Stability is not only a concern for the investor but also a key component for states to attract foreign investments".^{xxxvi} The criteria of 'stability and predictability' of the legal framework seems feasible as being concerned with overall effect of the law on the investment, rather than particular point of reference. With this respect the crucial question appears as to whether the state obliged not to alter the legal business environment under which the investment has been made, in order to meet the requirement of stability and predictability under the international law. The requirement to maintain stable and predictable legal framework may have far reaching implications, in the case of being treated as obligation 'not to alter' the legal framework similar to the widely replicated stabilization clause having controversy over its homogeneous effect. The more pragmatic approach can be in association of the state's duty to refrain from taking the drastic turn in legal framework of the investor, rather than limiting the power to legislate. The essential nature of legislative function supported by the principle of state sovereignty under the customary international law is supporting that position. In the context of the law making, the tribunal in *Parkerings v Lithuania*, stated that while it is 'prohibited for a State to act unfairly, unreasonably or inequitably in the exercise of its legislative power', 'there is nothing objectionable about an amendment brought to the regulatory framework existing at the time an investor made its investment'.^{xxxvii} Obviously the necessary balance can be maintained in the case of legislative practice followed reasonable and equitable legislative measures towards the investor's regulatory climate. However, the obligation to provide stable and transparent legal framework under the FET in the treaty is subject to the legal order of the host state. Instable legal framework of the country in *Mamidoil*, lead to the inability to create the same level of legitimate expectations as in other jurisdictions.^{xxxviii}

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In procedural level detecting the exorbitant and inconsistent application of the rule is possible when there is an occurrence of using a remedy not foreseen by the rule of law in question. In *Quiborax*, revocation of mining concessions by Bolivia due to customs and tax irregularities as a result of the audit, was conflicting with the national Mining Code that only foreseen the annulment instead of revocation. The state abrogated revocation with annulment of concessions to remedy the problem, however in eyes of the tribunal the strategy to legalize the revocation by annulment breached the FET. Moreover, the absence of notification on audit and not providing access to information on that, was found as incompatible with the due process, and also qualified as arbitrary and discriminatory under the both international law and national law of the host state.^{xxxix}

In *Copper Mesa* arbitrariness of taking out of the due process in adoption of the resolutions terminating the permissions was found as not related to the regulatory measures and essentially expropriatory.^{xl} However, the measure cannot be arbitrary if it's reasonably related to a rational policy of the state emphasized in *Electracabel*.^{xli} In *Philip Morris* case the 80/80 Regulation increasing the size of the anti-health warnings to 80%, and the Single Presentation Regulation (SPR) established requirements to the graphic, complying with which necessitated to change of the brand, that investor treated as intellectual property violation. The regulations wasn't found expropriatory with regard to the Philip Morris's investment, and FET claim was rejected in absence of arbitrariness and breach of legitimate expectations.^{xlii}

Inadequate response based on the proportionality test can be instrumental in signalling on the inconsistency in application of the law. Invalidation of licenses in *Khan Resources*, that although did not breached the Mongolian law, in tribunals view haven't been significantly reasoned by law. The proportionality analysis allowed for the tribunal to define that invalidation was not an appropriate penalty for the case even if the alleged violation would occur. This let the tribunal to find it as a denial of the due process in law.^{xliii} Even upon improper response on the application of law, the position of tribunal was in necessity to remedy the situation by the state. Herewith, after invalidating the license, Mongolia had to reregister the license as there was no significant reason for violation the application requirement.^{xliv}

The inadequate response from the regulatory authority to the investor's act, over the inconsistent law that has affected the activity of investor can have its resemblance with creeping expropriation. However, in considered case the regulatory measures may not come as multiple and coordinated, that lowering the chance to outlaw the measures. Under the inconsistent law it's rather comes as a single act, that may although be enough to paralyze the activity of the investor. This suggests the tribunal to take more selective and flexible approach in distinguishing the acts of the regulator. Sensitivity of the issue is reasoned by potential possibility for the regulatory measure to remain within the bona fide regulatory action of the state, however being expropriatory as of fact. Possibility of regulatory measures to be essentially expropriatory was specially signified in the *Tecmed v Mexico*.^{xlv} The importance of the tribunal to be guided by the 'Sole Effect' doctrine is gaining special importance here, that allow to scrutinize the actions of the state, which are not expropriatory but having similar impact on the investor as of ultimate result.^{xlvi}

The potential defence of the state over the inconsistent regulation may come in the form of positioning the body as applying the law, while the problem is in designing the law, hence reference to another body for the purpose of responsibility, based on division of competences of the state bodies. However, the principles of attribution coming out of the concept of 'unity of state' under the international law, insisting on responsibility of the state for all its bodies, of all levels and regions.^{xlvii} Contrary the position of the state can also be in reference to the regulatory authority that is improperly applied the rule, and hence acted beyond its powers. Referring back to the rules of

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attribution under international law, the acting of its organ ultra vires and beyond the scope given by unequivocal rule or contravenes instruction cannot immunize the state from responsibility.^{xlvi} Although it's not excluded that action of the non-public entity may not be attributable to the state as termination of the lease agreement by ANR, which was found not attributable to Poland, due to separate legal personality and exercise of operational autonomy.^{xlix} Hence inconsistency of law giving the grounds for the regulatory authority to interpret the act out of its scope, or procedural instructions, or conflicting with the law of higher hierarchy, cannot prevent overall state responsibility under the international law. As supported by *SPP v Egypt*, where the state was precluded from finding the acts of official body as null and void, due to allegedly being contrary to the inalienable nature of the public domain, and not being taken in accordance of the procedural rules under the national law, was found as give a way to legitimate expectations.^l

Without prejudice to reasonableness of the prudent investor to consider the host state law before investing, obviously state needs to take into account, that this creates the grounds for violation of legitimate expectations on the side of investor.^{li} This is supported by the duty of state to take the measures to protect the rights and legitimate interest of the investors, to whom the law can cause a misinterpretation supported by *MDT v Chile*.^{lii} Otherwise inconsistent norms may serve for the state as a tool to invoke expropriatory measures against the investor, whenever it finds it's necessary, possibly as a contra measure, or more detrimentally as a predesigned intention to expropriate. Traditional contradiction in rights of the state to regulate and right of the investor to be protected, in the context of duty of the state to warn, and duty of the investor to be aware of, can be considered as corresponding rather than contradicting, that can be enabled through the assistance, cooperation.

In the case of ambivalence it may be plausible for the investor to exercise the due diligence, and when possible to take the steps to preclude the potential adverse effect of the norm in proactive manner, whether it is newly adopted or preexisting law. As it was mentioned in *Parkering v Lithuania*, 'an investor's right to have legitimate expectations protected is contingent on those expectations being reasonable in light of the circumstances and on the investor having exercised due diligence.'^{liii} According to OECD Principles for Private Sector Participation in Infrastructure, the private investor's observance of commonly agreed standards of responsible business conduct is necessary.^{liv} Potentially the lack of actions from the investor to act upon the requirement of the legal framework could shift the responsibility on the investor. Denial by Dominican Republic of environmental license application to the investor *Corona* and absence of response for the consideration, led to the state's response that investor itself delayed the process by omitting documents and multiple changing of the project.^{lv} ICSID lacked jurisdiction due to three years limitation period of the BIT in this case, which tells that the final outcome of this case is yet to come. Similarly in another completed case, warnings given by the ministries on necessity to obtain additional permits and disregard of that by the investor, led to the dismissal of the claims by the tribunal against Oman on the lack of merits.^{lvi}

Conclusion

Nowadays in foreign investment jurisprudence it is possible to distinguish the approach in outlawing inconsistencies of regulation based on ambivalent legal framework with considering the host state as faulty for adoption and implementation of these regulations. With all merits of the concept of 'prudent investor', it's barely possible to expect it in non-transparent and ambivalent legal framework. In the range of cases tribunals didn't supported the claims of violation by the investor of regulatory framework due to its insubstantial nature not threatening the purpose of investment. Lack of coordination or governmental bodies are subject to the rules of attribution of international law that prevent reference to division of competences among various state authorities to escape liability. The obvious lack of catching points in the cases with inconsistent regulations, in situation when regulatory actions are lacking to attain the threshold of expropriatory measures, are insisting in more complex approach in tackling the problem. The broader scope and flexibility of FET standard of treatment, comprising expansive range of criteria

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allowing to invoke against inconsistencies in laws and regulations, enabling relevant ones in accordance with the facts of every specific case. Violation of such a criteria as coherence and consistency supported in *MTD v Chile*, with requirement to maintain stable and predictable framework in example of *LG&E v Argentina*, or the transparency and legitimate expectations supported in *SPP v Egypt*, that were upheld even without a treaty guarantee of FET, offers a viable instruments to ensure protectability of the investment against the inconsistencies of regulatory framework and expansive application of regulations of the host state.

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A HYBRID MODEL PROPOSAL FOR PERSONNEL PERFORMANCE EVALUATION PROCESS UNDER FUZZY ENVIRONMENT

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Abstract

Performance evaluation process is becoming more and more important for today's organizations because of directly influencing the organizations performance. The performance evaluation process is a multi-criteria decision-making problem due to involving the qualitative and quantitative criteria. In this study, TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) and Analytical Hierarchy Process (AHP) in fuzzy environment are suggested as an integrated model for the personnel performance evaluation problem. The proposed model provides convenience for the executives in the personnel performance evaluation stage.

Keywords: Performance Evaluation, Multi Criteria Decision Making, Fuzzy Logic

1. Introduction

In recent years, the competition among the organizations has increased due to the globalization effect, technological advances, economic and social reasons. Under these conditions, it is now deemed as a need by the organizations to establish more efficient and effective systems, meaning more successful systems compared to their competitors. There are many factors having an impact on the success of an organization, yet one of the most important factors is the employed human source. The organizations, being aware of this matter, must focus particularly on the personnel performance issue while measuring the performance of critical points in their systems.

The term "Performance Evaluation" has been discussed for the first time during early 1900s in USA, and started to be used scientifically with the studies of Frederick Taylor. The term "Performance Evaluation" has started to draw the attention of both organizations and also the academic researchers in the recent years. The personnel performance evaluation is a multi-criteria decision-making problem, which involves both numerical and non-numerical criteria within. Since the non-numerical criteria is not based on the subjective evaluation of the decision maker, the evaluation based on such criteria may vary depending on the decision makers. This matter prevents the performance evaluation phase to be objective. Fuzzy decision multi-criteria decision-making methods have been used because of the fact that certain criteria as designated within the performance evaluation phase involves uncertainty, and that they are based on the subjective opinions of the decision makers.

In this study, a detailed review of literature is presented concerning the personnel performance evaluation on next chapter. On the third chapter, information about the fuzzy analytical hierarchy process (AHP) and fuzzy TOPSIS are provided, suggested as the solution of the problem. The fourth chapter comprises of the results and analyses of a case study, in which the suggested model is applied during the personnel evaluation process of a company, carrying on business in manufacturing sector.

2. Literature Review

On this part of the study, the literature review conducts related to the performance evaluation are analyzed.

Eraslan and Algun (2004) formed four main criteria for white-collar workers in a company, which are personal criteria (work experience, following the orders, respecting to the superiors, taking initiatives, leadership, marital status, saving behaviour, bringing the family problems in work environment), behavioral criteria (working in cooperation and in harmony, dependability, taking responsibility, improving the subordinates, communication with the customers, creativity, protection of the office supplies, social relations, disciplinary punishment), technical criteria (knowledge & skill levels, protecting the machinery, tools and equipment, supervision requirement, having the ability to work in different lines of business) and general criteria (work attendance and resistance to stress). On the other hand, the Personal Criteria, Behavioral Criteria, Technical Criteria and Productivity & efficiency criteria have been used for blue-collar workers. The AHP method was used for performance evaluation in the study. Camgoz and Alperden (2006) applied the 360 degree performance evaluation method, as one of the human resources practices. The following criteria have been analyzed as evaluation criteria in the study: Personal integrity, Technical skill, Analysis, Leadership, Motivation, Implementation, Contribution to Personal Development. Kadak (2006) used the AHP method for the performance evaluation problem of the sales department employees in a company in pharmaceutical industry. Sixteen sub-criteria were used under the following main criteria: sales based targets, member based targets, skill based targets. These sub-criteria are as follows: sales target realization, revenue alteration, active member, campaign-target realization, number of mistakes, revenue alteration of the members with lower revenue, online ordering member, informed member, communication, adaptation to teamwork, job-tracking and finalization, personal development. Dagdeviren (2007) divided the factors to be used in personnel evaluation with fuzzy AHP method, as occupational and personal factors in his study, discussing the exchange knowledge, foreign trade knowledge and legislation knowledge as occupational factors, while discussing the matters of taking initiative, perception, analytical thinking, physical appearance as personal factors.

Demirtas (2009) offered a new model for the performance evaluation system of engineer officers in Turkish Armed Forces. Three main evaluation criteria are discussed in this study, as personal, martial and inner criteria, while the subcriteria are as follows: creativity, communication, experience, leadership, researching, sense of responsibility, initiative, sticking by the disciplinary rules, decision-making skills on politeness and kindness, physical and mental endurance, success in the auditing process, task knowledge and dominance, planning skills, organizing skills, tracking and control skills. Akcakanat (2009) focused on the performance evaluation problem in a police department in his study. In this study, twenty one evaluation criteria in total are determined by discussing the basic and administrative skills. Kayhan (2010) analyzed the employee performance by using the Fuzzy AHP and Fuzzy TOPSIS methods with two separate normalization techniques in his study. The performance evaluation criteria are discussed in four groups in the study as follows: Basic Competence Criteria, First-Stage Administrative Competence Criteria, Mid-Level Administrative Competence Criteria and Top-Level Competence criteria. "Teamwork, Communication, Innovation, Problem solving and Decision making, Customer centricity, Loyalty to his/her job" criteria are used as basic competence criteria, while "Performance Management, Work Development, Decision Making and Crisis Management, Representation and Effectiveness, Planning and Organization, Corporate Culture and Awareness" sub-criteria are applied as Administrative Competence Criteria. Moon et al. (2009) developed an evaluation system with fuzzy logic method for performance evaluation problem in military in the study. The main criteria of service evaluation, sophisticated skills, growth potential and innovation are used in the performance evaluation process. Balli et al. (2009) developed a fuzzy extern system in order to evaluate the annual performance of employees in an organization in his study. The following criteria are discussed during practical process: self-confidence, adaptation, resolution, skills, responsibility criteria. Ozdaban (2010) created a fuzzy decision model on work evaluation and personnel evaluation in his study. Twelve subcriteria are designated under four main criteria, while fifty other criteria are determined under these subcriteria. The main criteria comprise of skills, responsibility, effort and work conditions.

Mohammed analyzed the performance evaluation of academic personnel in his study (2010), and based on the following main criteria: "research, education and service criteria". Manoharan et al. (2011) used the following criteria on a study carried out on the performance evaluation in a company manufacturing automotive parts: work knowledge, continuity, cost efficiency, versatility, relations between individuals, adaptation, teamwork, conciliation,

collaboration. In this study, the fuzzy multi-criteria decision-making technique was used. Gungor and Biberici (2011) used the 360 degree performances evaluation and AHP method. The criteria used in this study are as follows: leadership, occupational & technical skills, adaptation to changes, communication skills, human relations, result accomplishment, personnel training. Kara (2011) used 360 degree performance evaluation method in his study and put it into practice for mid-level managers. The criteria of leadership, task management, adaptation to changes, communication, human relations, result oriented, personnel training and developing were used. Gorener and Tepe (2014) used the AHP and Moora methods for personnel selection problem. Graduation, computer skills, competence level, foreign language level, projected generated concerning the job definition, experience, references, face-to-face meeting, interview, social activities are discussed as evaluation test criteria. Espinilla et al. (2013) designated eleven criteria for personnel performance evaluation. These criteria comprise of productivity, sales amount, average off-time, company introduction, interest in training, work management, customer services, responsibility, initiative, exemplifying, personal appearance. Tore (2014) designated fourteen performance criteria concerning the performance of employees in banking sector. These criteria are as follows: completing the work on time, good-humoredly communication with the customers, having a good knowledge store on its profession, vocational-trainings received, type of graduation, graduation grade, working hours, assigned department, personnel number in the department, number of customers coming to the branch, type of transactions carried out in the branch, specifications of the site - where the branch is located, working hours in the branch. Samuel et al. (2014) focused on the performance evaluation of academic personnel. The main criteria of academic competence, publications, educational & research studies, contributions, corporate belonging, specialties are discussed in his study. The fuzzy decision system is used for the evaluation process. Kang and Shen (2015) discussed the work performance, occupational behaviors, competence and corporate belonging criteria in the study carried out on personnel performance evaluation. Karadag Albayrak and Senger (2015) carried out a study on personnel evaluation with gray relation analysis method. The personnel performance criteria, which were used in the study, are as follows: professional knowledge store level, professional quality level, professional quantity level, tendency to collaboration, level of entrepreneurship, level of work responsibility, level of work commitment, as well as the decision-making skills.

3. Problem Definition and the Methodology

The following criteria are decided to be used for personnel evaluation problem based on the literature review and the discussions with experts: communication, teamwork, job responsibility, business development, problem solving and decision making, technical knowledge and skills, honesty (see Table 1).

Table 1 - Performance Evaluation Criteria

Performance Evaluation Criteria	Description	Reference
Communication (C1)	Transferring the message from one to another by means of emotions, thoughts, information and behaviour in any way and in any form	Camgöz ve Alpten (2006); Kayhan (2010); Yıldız ve Aksoy(2015)
Teamwork (C2)	The ability to work by cooperating and harmonizing for the ones by thinking the key to success is a team work.	Demir (2009); Mohammed (2010); Kayhan (2010); Yıldırım (2015)
Job Responsibility (C3)	The ability to fulfill the responsibilities and embrace the work which the one works for.	Eraslan ve Algün (2004); Demirtaş (2009); Espinilla v.d.(2013); Şimşek vd.(2014)

Business Development (C4)	The ability of firm providing all possibilities that accommodates for the worker to present proposals and create new ideas	Mohammed (2010); Kayhan (2010); Yıldırım (2015)
Problem Solving and Decision Making (C5)	The ability to think all the alternatives in case of any crisis in the frame of rationality, sound judgements and problem solving.	Demir (2009); Demirtaş (2009); Kayhan (2010); Karadağ ve Senger. (2016)
Technical knowledge and skills (C6)	The ability to have technical data and information for the relevant position in the firm.	Eraslan ve Algün (2004); Camgöz ve Alperden (2006); Güngör ve Biberici (2011); Yıldırım (2015)
Honesty(C7)	With the aim of sustainability of the work and healthy information that spreads to managers, co-workers and employees , it is the ability to be honest and clear when it comes to transferring the message within the frame of the work.	Küçü (2007); Ekin (2014)

On this chapter of the study can be found the methods suggested for personnel performance evaluation problem.

3.1. Fuzzy AHP

AHP is one of the multi-criteria decision-making methods used in modelling the unstructured problems in many fields like social, economic, political and management sciences (Saaty, 1980). The AHP method has been criticized many times since it is argued that it remains incapable of handling the uncertainties encountered during the paired comparison process, although the calculations are made based on the knowledge of decision maker (Deng, 1999; Kahraman, 2003). For this reason, the theories of AHP and fuzzy logic are combined, and certain studies have been carried out for determining the criteria degree of the decision maker based on his/her personal judgement, thus naming these studies as Fuzzy AHP (Yang and Chen, 2004). In Fuzzy AHP method, the value ranges are utilized for determining the paired comparison rates instead of definite numbers, differently from the traditional AHP method (Bender and Simonovic, 2000). The experts are stating their opinions with non-graphic analyses, which - in fact- is a more realistic alternative, instead of a definite numerical statement on a certain subject. These non-graphic analyses comprise of triangular fuzzy numbers, indicating the judgement range (Gu and Zhu, 2004).

When the literature is considered from this point of view, the first study on AHP was carried out by Van Laarhoven and Pedrytez (1993) with triangular fuzzy numbers. Then, Buckley developed a model in AHP with trapezoidal fuzzy numbers (1985). The steps to be taken in Fuzzy AHP Method are as follows (Kahraman, 2004):

Range of Objects = $X = \{x_1, x_2, x_3, \dots, x_n\}$

The object represents the main criteria when considered from the point of main objective, while representing the sub criteria when viewed from the point of main criteria. In accordance with the grade analysis by Chang, each and every object is analyzed one by one, the grade analysis is performed for each objective and respectively (ξ_i). The grade analysis values for each object m are expressed with the following serial (Kahraman, 2004).

$$M_{gi}^1, M_{gi}^2, M_{gi}^3, \dots, M_{gi}^m \quad i = 1, 2, 3, \dots, n$$

These values M_{gi}^j ($j = 1, 2, 3, \dots, m$) are triangular fuzzy numbers.

1st step: First, the fuzzy values are defined, as object based.

$$S_i = \sum_{j=1}^m M_{gi}^j \otimes \left[\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j \right]^{-1} \quad (1)$$

$\sum_{j=1}^m M_{gi}^j$: For getting this result, the following additional fuzzy process is performed.

$$\sum_{j=1}^m M_{gi}^j = \sum_{j=1}^m l_j, \sum_{j=1}^m m_j, \sum_{j=1}^m u_j \quad (2)$$

$\left[\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j \right]^{-1}$ for getting this amount, the fuzzy addition is performed for these values: $M_{gi}^j (j = 1, 2, 3, \dots, m)$

$$\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j = \left(\sum_{i=1}^n l_i, \sum_{i=1}^n m_i, \sum_{i=1}^n u_i \right) \quad (3)$$

Taking the reciprocal of the above stated vector is stated as follows:

$$\left[\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j \right]^{-1} = \left(\frac{1}{\sum_{i=1}^n u_i}, \frac{1}{\sum_{i=1}^n m_i}, \frac{1}{\sum_{i=1}^n l_i} \right); \quad (4)$$

i, m, u values indicate the triangular fuzzy numbers. (i=lowest value, m=most probable value, u=highest value)

2nd step: $M_2 = l_2, m_2, u_2 \geq M_1 = l_1, m_1, u_1$ probability is indicated as follows:

$$V(M_2 \geq M_1) = [\text{lowest} (\mu_{M_1}(x), \mu_{M_2}(y))]$$

And it is also stated as follows:

$$V(M_2 \geq M_1) = \begin{cases} 1, & m_2 \geq m_1 \\ 0, & l_1 \geq u_2 \\ \frac{l_1 - u_2}{(m_2 - u_2) - (m_1 - l_1)} & \text{other term} \end{cases} \quad (5)$$

In order to compare the M_1 ve M_2 values, $V(M_1 \geq M_2)$ ve $V(M_2 \geq M_1)$ values are required.

3rd step: The possibility of the convex fuzzy number to be higher than the $M_i (i = 1, 2, 3, \dots, k)$ k convex fuzzy number is stated as follows:

$$\begin{aligned} V(M \geq M_1, M_2, M_3, \dots, M_k) &= [V(M \geq M_1) \cap (M \geq M_2) \dots (M \geq M_k)] \\ &= \text{lowest}(M \geq M_i); i=1, 2, 3, \dots, k \end{aligned} \quad (6)$$

In case for each $k=1, 2, 3, \dots, n; k \neq i$;

$d(A_i) = \text{lowest} V(S_i \geq S_k)$, the weight vector will be as follows:

$$W' = (d'(A_1), d'(A_2), d'(A_3), \dots, d'(A_n))^T \quad (7)$$

4th step: The weight vector is normalized through normalization process. The W value received here is not the fuzzy number, but it is the number indicating certainty.

$$W = ((dA_1), d(A_2), d(A_3), \dots, d(A_n))^T \quad (8)$$

3.2.1. Liou and Wang Method

The total integral value method based ranking method suggested by Liou and Wang in 1992 (Kaptanoglu, 2005).

Calculation algorithm of $\tilde{A} = (l, m, u)$ total integral values for triangular fuzzy numbers is as follows:

$$\begin{aligned} I_1^{\tilde{A}} &= \frac{1}{2}a(m+u) + \frac{1}{2}(1-a)(l+m) \\ &= \frac{1}{2}[au + m + (1-a)l] \end{aligned} \quad (9)$$

The value is taken in the range [0,1] for "a", which is defined as the optimism index of the decision maker. The higher "a" index is used for an optimistic decision maker, while this value is used for pessimistic decision maker, when it gets lower.

3.2 Fuzzy TOPSIS

TOPSIS is a multi-criteria decision making method, developed by C. L. Hwang and K. Yoon (1981). While it is the closeness to be found for ideal solution in TOPSIS method, which is based on finding and selecting the alternative that is the most probable ideal solution, the distance is analyzed in terms of positive and negative ideal solution (Hwang and Yoon, 1981). In this method, it is argued that the fuzzy logic can be utilized to become free of subjective judgments of decision makers, and the first study on this matter was carried out by Negi in 1989 through the usage of triangular fuzzy numbers with TOPSIS method in his Ph.D. dissertation. After then, this method has been used in many decision making problems. The triangular fuzzy numbers can be utilized in TOPSIS method, and the trapezoidal fuzzy numbers are frequently utilized, as well. The Fuzzy TOPSIS method can be defined as a method for evaluating and ranking of alternatives based on many decision criteria under certainty by more than one decision maker, thus making the right decision for the selection. The grades of the criteria used for evaluating the importance of criteria are stated with non-graphic variables. The used non-graphic variables and used variables, as triangular fuzzy numbers, can be found on Table 2 and Table 3 (Ying Ming Wang, 2006).

Table 2 - Non-graphic variables for importance level of criteria, and the relevant triangular fuzzy numbers
(Chen et al., 2006)

Linguistic variable	Triangular fuzzy numbers	Trapezoidal fuzzy numbers
Absolutely Low	(0, 0, 0.1)	(0, 0, 0.1, 0.2)
Low	(0, 0.1, 0.3)	(0, 0.2, 0.2, 0.3)
Medium Low	(0.1, 0.3, 0.5)	(0.2, 0.3, 0.4, 0.5)
Fair	(0.3, 0.5, 0.7)	(0.4, 0.5, 0.5, 0.6)
Medium High	(0.5, 0.7, 0.9)	(0.5, 0.6, 0.7, 0.8)
High	(0.7, 0.9, 1)	(0.7, 0.8, 0.8, 0.9)
Very High	(0.9, 1, 1)	(0.8, 0.9, 1.0, 1.0)

Table 3 - Non-graphic variables for importance level of criteria, and the relevant triangular fuzzy numbers
(Chen et al., 2006)

Linguistic variable	Triangular fuzzy numbers	Trapezoidal fuzzy numbers
Very bad	(0, 0, 1)	(0, 0, 1, 2)
Bad	(0, 1, 3)	(0, 2, 2, 3)
Medium Bad	(1, 3, 5)	(2, 3, 4, 5)

Fair	(3, 5, 7)	(4, 5, 5, 6)
Medium Good	(5, 7, 9)	(5, 6, 7, 8)
Good	(7, 9, 10)	(7, 8, 8, 9)
Very Good	(9, 10, 10)	(8, 9, 10, 10)

In here, $k \times$ decision maker is equal to D_r ($r=1, \dots, k$). \tilde{W}_r^j is for the importance level on K_j ($j=1, \dots, m$) through j . criteria by r . decision maker. \tilde{x}_{ij}^r indicates the level of i . alternative A_i ($i=1, \dots, n$), based on the value given by r . decision maker concerning j . criteria. The Fuzzy TOPSUS method comprises of the following steps (Chen et al., 2006):

- 1) For personnel performance evaluation process, $k \times$ decision maker is to be designated. The designated $k \times$ decision maker designate(s) the personnel performance evaluation criteria based on the literature review.
- 2) The importance of selection criteria and evaluation of the alternatives for each criteria by the $k \times$ decision maker is to be calculated using the equation (10) and (11):

$$\tilde{w}_{ij} = \frac{1}{k} [\tilde{w}_j^1 + \tilde{w}_j^2 + \dots + \tilde{w}_j^k] \quad (10)$$

$$\tilde{x}_{ij} = \frac{1}{k} [\tilde{x}_{ij}^1 + \tilde{x}_{ij}^2 + \dots + \tilde{x}_{ij}^k] \quad (11)$$

- 3) A fuzzy decision matrix is formed for criteria and alternatives.

$$\tilde{D} = \begin{bmatrix} \tilde{x}_{11} & \tilde{x}_{12} & \dots & \tilde{x}_{1n} \\ \tilde{x}_{21} & \tilde{x}_{22} & \dots & \tilde{x}_{2n} \\ \vdots & \vdots & \dots & \vdots \\ \tilde{x}_{m1} & \tilde{x}_{m2} & \dots & \tilde{x}_{mn} \end{bmatrix} \quad (12)$$

$$\tilde{W} = [\tilde{w}_1, \tilde{w}_2, \tilde{w}_3, \dots, \tilde{w}_n] \quad (13)$$

- 4) The fuzzy decision matrix is normalized for the personnel with linear scale conversion.

$$\tilde{R} = [\tilde{r}_{ij}]_{m \times n} \quad (14)$$

As the set of B benefit criteria and C cost criteria:

$$\tilde{r}_{ij} = \left(\frac{a_{ij}}{c_j^*}, \frac{b_{ij}}{c_j^*}, \frac{c_{ij}}{c_j^*} \right), j \in B \quad (15)$$

$$\tilde{r}_{ij} = \left(\frac{a_j^-}{c_{ij}}, \frac{a_j^-}{b_{ij}}, \frac{a_j^-}{a_{ij}} \right), j \in C \quad (16)$$

$$c_j^* = \max_i c_{ij} \text{ eğer } j \in B \quad (17)$$

$$a_j^- = \min_i a_{ij} \text{ eğer } j \in C \quad (18)$$

- 5) The weighted-normalized fuzzy decision matrix is calculated by multiplying the criteria weight \tilde{w}_j with normalized fuzzy decision matrix elements \tilde{r}_{ij}

$$\tilde{V} = [\tilde{v}_{ij}]_{m \times n} \quad i=1, 2, \dots, m \text{ and } j=1, 2, \dots, n \quad (19)$$

$$\tilde{v}_{ij} = \tilde{x}_{ij} \times \tilde{w}_j \quad (20)$$

- 6) The positive fuzzy ideal solution (A^*) and the negative fuzzy ideal solution (A^-) is found.

$$\mathbf{A}^* = (\tilde{v}_1^*, \tilde{v}_2^*, \dots, \tilde{v}_n^*) \quad (21)$$

$$\mathbf{A}^- = (\tilde{v}_1^-, \tilde{v}_2^-, \dots, \tilde{v}_n^-) \quad (22)$$

$$\tilde{v}_j^* = (1, 1, 1) \text{ and } \tilde{v}_j^- = (0, 0, 0) \quad j=1, 2, \dots, n \quad (23)$$

7) The distance of each alternative from \mathbf{A}^* and \mathbf{A}^- is calculated.

$$d_i^* = \sum_{j=1}^n d(\tilde{v}_{ij}, \tilde{v}_j^*), \quad i=1, 2, \dots, m \quad (24)$$

$$d_i^- = \sum_{j=1}^n d(\tilde{v}_{ij}, \tilde{v}_j^-), \quad i=1, 2, \dots, m \quad (25)$$

$d(.,.)$ The difference between two fuzzy numbers

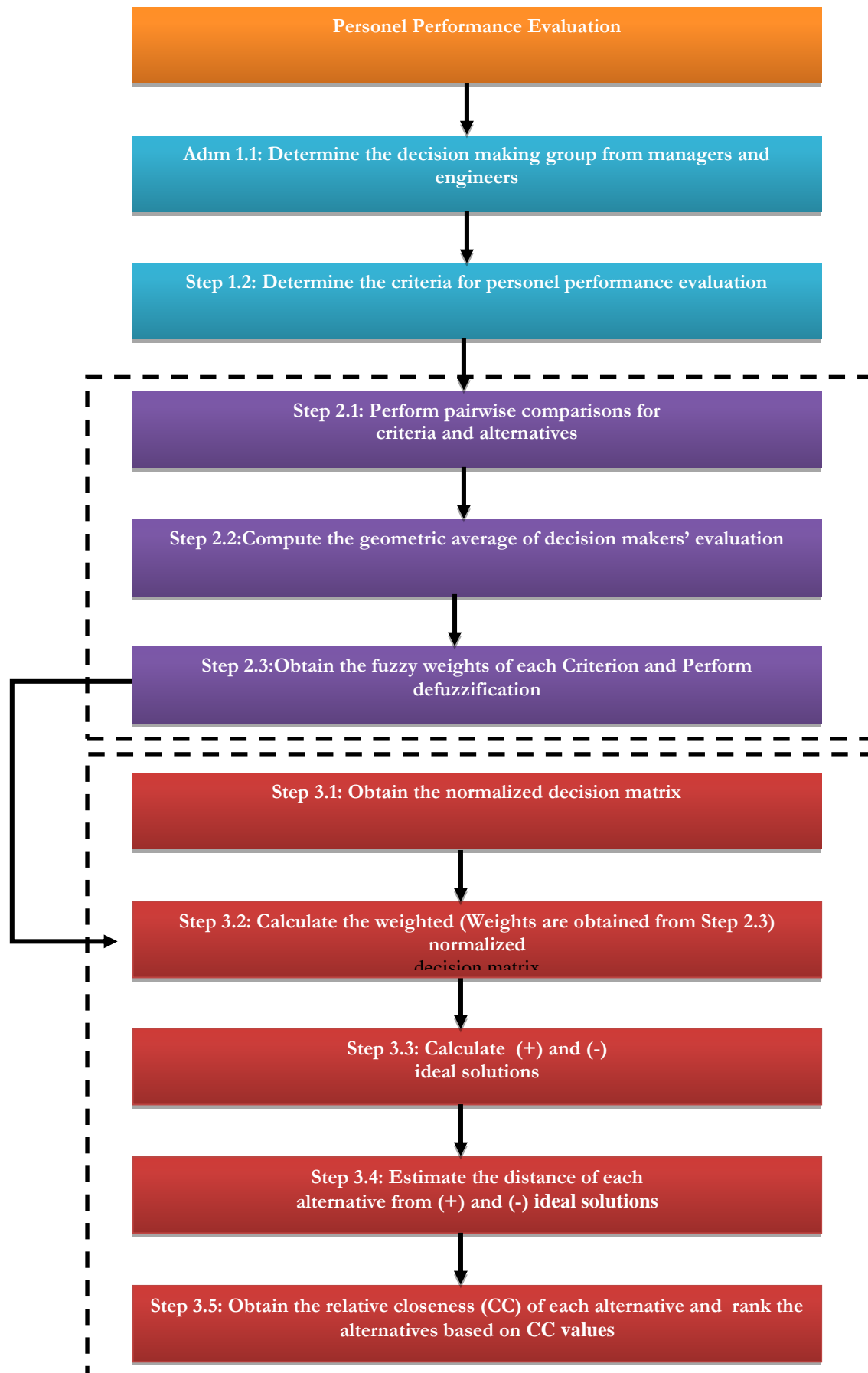
8) Closeness coefficient is calculated for each alternative.

$$CC_i = \frac{d_i^-}{d_i^* + d_i^-}, \quad i=1, 2, \dots, m \quad (26)$$

9) A ranking is applied between the alternatives based on the closeness coefficient CC_i .

3. The Proposed Model

In this study, the presented integrated model for personnel performance evaluation includes two-phased, the criteria weight is designated with fuzzy AHP method on the first phase. On the second phase, the ranking for the personnel performance is provided via the fuzzy TOPSIS method. The flow diagram of the integrated model suggested in this study can be seen on Figure 1.

Figure 1. Flow diagram of the proposed model

4. Application

The presented method in this study was applied on the personnel performance evaluation process of a company, which is a leading organization in its field in Turkey. The fuzzy AHP is used during the weighting phase of personnel performance evaluation criteria, seven criteria ($C=1,..,7$) were determined by three decision maker for the performance evaluation of seven employees ($P=1,..,7$) working in the technical marketing department of the company with Fuzzy TOPSIS method on the second phase.

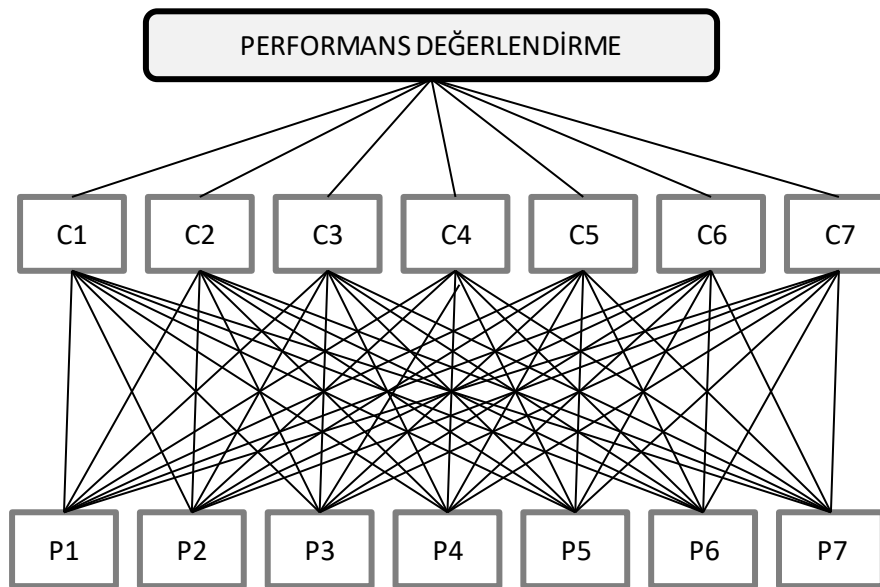


Figure 2: Hierarchical Structure of Performance Evaluation

4.1. Calculating the Criteria Weights using the Fuzzy AHP

Step 1: On this phase - the phase of criteria weighting - the Fuzzy AHP method is utilized, the decision makers were asked to compare each criteria with each other and to state these comparisons based on the scale on Table 4. The data obtained based on the comparisons made by three decision makers can be found on Table 5.

Table 4 - The Importance Level of Triangular Fuzzy Numbers

Absolutely more importance	(7,9,9)
Very strongly more importance	(5,7,9)
Strongly more importance	(3,5,7)
Weakly more importance	(1,3,5)
Equal importance	(1,1,1)
Weakly more importance	(1/5,1/3,1/1)
Strongly more importance	(1/7,1/5,1/3)
Very strongly more importance	(1/9,1/7,1/5)
Absolutely more importance	(1/9,1/9,1,7)

Table 5 - Integrated Evaluation Matrix in which the criteria are compared via paired comparison method.

Criteria	C1	C2	C3	C4
C1	(1,00; 1,00; 1,00)	(3,98; 6,08; 7,61)	(0,57; 0,79; 1,22)	(0,48; 0,75; 1,00)
C2	(0,13; 0,16; 0,25)	(1,00; 1,00; 1,00)	(1,71; 2,60; 3,98)	(1,44; 2,32; 3,66)
C3	(0,82; 1,26; 1,75)	(0,25; 0,39; 0,58)	(1,00; 1,00; 1,00)	(1,00; 1,91; 3,56)
C4	(1,00; 1,33; 2,08)	(0,27; 0,43; 0,69)	(0,28; 0,52; 1,00)	(1,00; 1,00; 1,00)
C5	(1,61; 2,29; 3,56)	(1,00; 1,44; 1,71)	(1,00; 1,33; 2,08)	(1,44; 1,71; 1,91)
C6	(0,49; 0,82; 1,91)	(0,52; 0,70; 1,00)	(0,52; 0,78; 1,44)	(0,52; 0,78; 1,44)
C7	(7,00; 9,00; 9,00)	(7,00; 9,00; 9,00)	(7,00; 9,00; 9,00)	(7,00; 9,00; 9,00)

Criteria	C5	C6	C7
C1	(0,28; 0,44; 0,62)	(0,52; 1,22; 2,03)	(0,11; 0,11; 0,14)
C2	(0,58; 0,69; 1,00)	(1,00; 1,42; 1,91)	(0,11; 0,11; 0,14)
C3	(0,48; 0,75; 1,00)	(0,69; 1,29; 1,91)	(0,11; 0,11; 0,14)
C4	(0,52; 0,58; 0,69)	(0,69; 1,29; 1,91)	(0,11; 0,11; 0,14)
C5	(1,00; 1,00; 1,00)	(0,84; 1,10; 1,71)	(0,11; 0,11; 0,14)
C6	(0,58; 0,91; 1,19)	(1,00; 1,00; 1,00)	(0,11; 0,11; 0,14)
C7	(7,00; 9,00; 9,00)	(7,00; 9,00; 9,00)	(1,00; 1,00; 1,00)

Step 2: The data on Table 5 are calculated with the equations stated on the 1st step of Fuzzy AHP method, and stated as in Table 6.

Table 6 - The fuzzy numbers obtained on the 1st stage of Fuzzy AHP

	C1	C2	C3	C4
l	0,05871663	0,050555307	0,036850934	0,032818372
m	0,104198136	0,083253832	0,067288601	0,052781226
u	0,181739643	0,159416918	0,132811932	0,100391961

	C5	C6	C7
l	0,059269652	0,031768127	0,363554115
m	0,090018952	0,051103493	0,55135576
u	0,161648938	0,108443553	0,733996455

Step 3: For finding the probability $M_2 = (l_2, m_2, u_2) \geq M_1 = (l_1, m_1, u_1)$ The equation no.: 5 is utilized. The probabilities as found are indicated with the following equations.

$V(C1) \geq V(C2) = 1$	$V(C3) \geq V(C4) = 1$	$V(C5) \geq V(C6) = 1$
$V(C1) \geq V(C3) = 1$	$V(C3) \geq V(C5) = 1,09$	$V(C5) \geq V(C7) = 0$
$V(C1) \geq V(C4) = 1$	$V(C3) \geq V(C6) = 1$	$V(C6) \geq V(C1) = 0,82$
$V(C1) \geq V(C5) = 1$	$V(C3) \geq V(C7) = 0$	$V(C6) \geq V(C2) = 1,518$
$V(C1) \geq V(C6) = 1$	$V(C4) \geq V(C1) = 0,82$	$V(C6) \geq V(C3) = 1,218$
$V(C1) \geq V(C7) = 0$	$V(C4) \geq V(C2) = 1,01$	$V(C6) \geq V(C4) = 1,298$
$V(C2) \geq V(C1) = 1,276$	$V(C4) \geq V(C3) = 1,30$	$V(C6) \geq V(C5) = 0,826$
$V(C2) \geq V(C3) = 1$	$V(C4) \geq V(C5) = 0,83$	$V(C6) \geq V(C7) = 0$
$V(C2) \geq V(C4) = 1$	$V(C4) \geq V(C6) = 1$	$V(C7) \geq V(C1) = 1$
$V(C2) \geq V(C5) = 1,284$	$V(C4) \geq V(C7) = 0$	$V(C7) \geq V(C2) = 1$
$V(C2) \geq V(C6) = 1$	$V(C5) \geq V(C1) = 1,39$	$V(C7) \geq V(C3) = 1$

$V(C2) \geq V(C7) = 0$	$V(C5) \geq V(C2) = 1$	$V(C7) \geq V(C4) = 1$
$V(C3) \geq V(C1) = 1,085$	$V(C5) \geq V(C3) = 1$	$V(C7) \geq V(C5) = 1$
$V(C3) \geq V(C2) = 1,22$	$V(C5) \geq V(C4) = 1$	$V(C7) \geq V(C6) = 1$

Step 4: The weight vector is obtained as stated in Equation 6. Then this weight vector is normalized, thus being stated as following. However, since each and every criteria - except for one - receives the value of "0", the ranking is not performed as per Cheng, but the ranking method by Liou and Wang, mentioned in the literature, is used, which we think is more suitable. The weight vector with Cheng Ranking Method: $W = \{0,0,0,0,0,0,1\}$ and the raking method, as per Liou and Wang, can be found as follows:

α , defined as the optimism index of the decision maker, is taken as 0,5 in the range of [0,1]. This is calculated with the formula in Figure 9, thus having the following results.

- $I_1^{\alpha}(S(C1)) = 0,17889$
- $I_1^{\alpha}(S(C2)) = 0,14838$
- $I_1^{\alpha}(S(C3)) = 0,14290$
- $I_1^{\alpha}(S(C4)) = 0,11118$
- $I_1^{\alpha}(S(C5)) = 0,18566$
- $I_1^{\alpha}(S(C6)) = 0,11326$
- $I_1^{\alpha}(S(C7)) = 1,00924$

The weight vector as per these values:

$$W' = (0,17889; 0,14838; 0,14290; 0,11118; 0,18566; 0,11326; 1,00924)$$

When this vector is normalized:

$$W = (0,09472; 0,07853; 0,07563; 0,05884; 0,09825; 0,05994; 0,53409)$$

4.2. Analysis of Performance Evaluation with Fuzzy TOPSIS Method

Three decision makers designated each personnel for designated criteria with the non-graphic variables as in Table 7. And in Table 8 can be found the non-graphic variables in terms of triangular fuzzy numbers.

Table 7 - Evaluation of personnel by the Executives with verbal expressions

Evaluation Criteria	Personnel	Decision Makers		
		D1	D2	D3
C1	P1	(F)	(G)	(VG)
	P2	(F)	(VG)	(MG)
	P3	(F)	(G)	(G)
	P4	(MB)	(VB)	(G)
	P5	(G)	(VG)	(VG)
	P6	(MG)	(G)	(G)
	P7	(MG)	(MG)	(G)
C2	P1	(F)	(MG)	(MG)
	P2	(F)	(G)	(MG)
	P3	(MG)	(G)	(MG)
	P4	(MB)	(B)	(MG)
	P5	(G)	(VG)	(G)
	P6	(MG)	(G)	(MG)
	P7	(G)	(G)	(MG)

C3	P1	(F)	(VG)	(G)
	P2	(F)	(G)	(G)
	P3	(F)	(G)	(G)
	P4	(F)	(F)	(G)
	P5	(MG)	(VG)	(G)
	P6	(MG)	(G)	(G)
	P7	(G)	(VG)	(G)
C4	P1	(F)	(MG)	(G)
	P2	(F)	(MG)	(G)
	P3	(F)	(MG)	(G)
	P4	(MB)	(B)	(G)
	P5	(MG)	(G)	(VG)
	P6	(F)	(F)	(G)
	P7	(MG)	(G)	(G)
C5	P1	(F)	(MG)	(G)
	P2	(F)	(MB)	(G)
	P3	(F)	(F)	(G)
	P4	(F)	(F)	(G)
	P5	(MG)	(G)	(G)
	P6	(MG)	(F)	(G)
	P7	(F)	(F)	(G)
C6	P1	(MG)	(F)	(G)
	P2	(F)	(F)	(MG)
	P3	(MG)	(MG)	(MG)
	P4	(G)	(G)	(G)
	P5	(G)	(MG)	(VG)
	P6	(MG)	(MB)	(MG)
	P7	(MG)	(G)	(MG)
C7	P1	(MB)	(B)	(VG)
	P2	(VG)	(VG)	(VG)
	P3	(G)	(VG)	(VG)
	P4	(G)	(VG)	(VG)
	P5	(VG)	(G)	(VG)
	P6	(VG)	(VG)	(VG)
	P7	(VG)	(G)	(VG)

Table 8 - The fuzzy numbers obtained after the personnel evaluation

Evaluation Criteria	Personnel	Decision Makers		
		D1	D2	D3
C1	P1	(3,5,7)	(7,9,10)	(9,10,10)
	P2	(3,5,7)	(9,10,10)	(5,7,9)
	P3	(3,5,7)	(7,9,10)	(7,9,10)
	P4	(1,3,5)	(0,0,1)	(7,9,10)
	P5	(7,9,10)	(9,10,10)	(9,10,10)
	P6	(5,7,9)	(7,9,10)	(7,9,10)
	P7	(5,7,9)	(5,7,9)	(7,9,10)
C2	P1	(3,5,7)	(5,7,9)	(5,7,9)
	P2	(3,5,7)	(7,9,10)	(5,7,9)

	P3	(5,7,9)	(7,9,10)	(5,7,9)
	P4	(1,3,5)	(0,1,3)	(5,7,9)
	P5	(7,9,10)	(9,10,10)	(7,9,10)
	P6	(5,7,9)	(7,9,10)	(5,7,9)
	P7	(7,9,10)	(7,9,10)	(5,7,9)
C3	P1	(3,5,7)	(9,10,10)	(7,9,10)
	P2	(3,5,7)	(7,9,10)	(7,9,10)
	P3	(3,5,7)	(7,9,10)	(7,9,10)
	P4	(3,5,7)	(3,5,7)	(7,9,10)
	P5	(5,7,9)	(9,10,10)	(7,9,10)
	P6	(5,7,9)	(7,9,10)	(7,9,10)
	P7	(7,9,10)	(9,10,10)	(7,9,10)
C4	P1	(3,5,7)	(5,7,9)	(7,9,10)
	P2	(3,5,7)	(5,7,9)	(7,9,10)
	P3	(3,5,7)	(5,7,9)	(7,9,10)
	P4	(1,3,5)	(0,1,3)	(7,9,10)
	P5	(5,7,9)	(7,9,10)	(9,10,10)
	P6	(3,5,7)	(3,5,7)	(7,9,10)
	P7	(5,7,9)	(7,9,10)	(7,9,10)
C5	P1	(3,5,7)	(5,7,9)	(7,9,10)
	P2	(3,5,7)	(1,3,5)	(7,9,10)
	P3	(3,5,7)	(3,5,7)	(7,9,10)
	P4	(3,5,7)	(3,5,7)	(7,9,10)
	P5	(5,7,9)	(7,9,10)	(7,9,10)
	P6	(5,7,9)	(3,5,7)	(7,9,10)
	P7	(3,5,7)	(3,5,7)	(7,9,10)
C6	P1	(5,7,9)	(3,5,7)	(7,9,10)
	P2	(3,5,7)	(3,5,7)	(5,7,9)
	P3	(5,7,9)	(5,7,9)	(5,7,9)
	P4	(7,9,10)	(7,9,10)	(7,9,10)
	P5	(7,9,10)	(5,7,9)	(9,10,10)
	P6	(5,7,9)	(1,3,5)	(5,7,9)
	P7	(5,7,9)	(7,9,10)	(5,7,9)
C7	P1	(1,3,5)	(0,1,3)	(9,10,10)
	P2	(9,10,10)	(9,10,10)	(9,10,10)
	P3	(7,9,10)	(9,10,10)	(9,10,10)
	P4	(7,9,10)	(9,10,10)	(9,10,10)
	P5	(9,10,10)	(7,9,10)	(9,10,10)
	P6	(9,10,10)	(9,10,10)	(9,10,10)
	P7	(9,10,10)	(7,9,10)	(9,10,10)

Step 5: Averaging the fuzzy numbers obtained after the personnel evaluation by the executives as in Table 8, the weight for each criteria is multiplied, thus being designated as in Table 9.

Table 9 - Average normalized fuzzy decision matrix

	C1	C2	C3	C4
P1	(0,05;0,07;0,08)	(0,04;0,05;0,07)	(0,05;0,07;0,08)	(0,04;0,06;0,08)
P2	(0,05;0,06;0,08)	(0,04;0,06;0,08)	(0,05;0,07;0,08)	(0,04;0,06;0,08)

P3	(0,05;0,07;0,08)	(0,05;0,07;0,08)	(0,05;0,07;0,08)	(0,04;0,06;0,08)
P4	(0,02;0,03;0,05)	(0,01;0,03;0,05)	(0,04;0,05;0,07)	(0,02;0,04;0,05)
P5	(0,07;0,09;0,09)	(0,07;0,08;0,09)	(0,06;0,08;0,09)	(0,06;0,08;0,09)
P6	(0,05;0,07;0,09)	(0,05;0,07;0,08)	(0,05;0,07;0,09)	(0,04;0,05;0,07)
P7	(0,05;0,07;0,08)	(0,05;0,07;0,09)	(0,07;0,08;0,09)	(0,05;0,07;0,09)
	C5	C6	C7	
P1	(0,04;0,06;0,08)	(0,04;0,06;0,08)	(0,03;0,04;0,05)	
P2	(0,03;0,05;0,06)	(0,03;0,05;0,07)	(0,08;0,09;0,09)	
P3	(0,04;0,05;0,07)	(0,04;0,06;0,08)	(0,07;0,09;0,09)	
P4	(0,04;0,05;0,07)	(0,06;0,08;0,09)	(0,07;0,09;0,09)	
P5	(0,05;0,07;0,09)	(0,06;0,08;0,09)	(0,07;0,09;0,09)	
P6	(0,04;0,06;0,08)	(0,03;0,05;0,07)	(0,08;0,09;0,09)	
P7	(0,04;0,05;0,07)	(0,05;0,07;0,08)	(0,07;0,09;0,09)	

Step 6: The distance of each alternative to fuzzy positive and negative ideal solution is calculated with Equation 23 and 24.

Table 10 - Distances to fuzzy positive and negative ideal solution

d*(Distances to fuzzy positive ideal solution)	d- (Distances to fuzzy negativeideal solution)
0,229062923	0,260942134
0,209623049	0,241272657
0,189221675	0,236180538
0,271193026	0,191138313
0,103162733	0,211066264
0,186178887	0,244599881
0,154206618	0,212702723

Step 7: The closeness coefficient for each alternative is calculated with the formula in Equation 25, and the following results are obtained for each personnel via these calculations.

Table 11: Closeness Coefficients

Personnel	CC (Closeness Coefficients)
P1	0,532529472
P2	0,535096373
P3	0,555193487
P4	0,413422792
P5	0,671695694
P6	0,567808581
P7	0,579714659

The personnel is ranked as P5>P7>P6>P3>P2>P1>P4 as per their closeness coefficients. According to this ranking, the personnel with the highest performance value is "P5", and the rest of which can be found on the above stated ranking.

5. Conclusion

Human Resources Management has a critical role in the activities of an organizations, and the need for qualified human source is constantly increasing, while the measurement of personnel performance is becoming more and

more important with the rapidly changing and developing technologies & innovations. One of the most importance practices in the management of Human Resources is the performance evaluation. Including many qualitative and quantitative evaluation criteria, the performance evaluation process is the multi-criteria decision making problem. In this study, a model, in which the Fuzzy AHP and Fuzzy TOPSIS methods are utilized, is suggested for the personnel performance evaluation problem. For putting this study into practice, seven performance evaluation criteria were designated for seven personnel in a company, and these seven employees were subjected to an evaluation within the framework of designated criteria by three executives. The suggested model is two-phased; the Fuzzy AHP method is utilized for designating the importance of performance evaluation criteria on the first stage, while on the second phase, the Fuzzy TOPSIS method is used for evaluating the candidates. With these calculations, the personnel, with the code "P5", received the highest closeness coefficient value of 0.5325. In the studies to be carried out in the future, such multi-criteria decision making methods as VIKOR, ELECTRE, DEMATEL in fuzzy environment can be developed for human resources performance evaluations.

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