



Original article

Knowledge management and performance, the traffic police department in the variouse province

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ABSTRACT

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Transportation industry in each country reflects the economic situation, and the extent of the country's industrial development and behavior management, especially knowledge management, traffic police foundation is very important. Safe management and road accidents necessitate the need to identify, understand and rigorous analysis, and training of personnel, and those involved in this phenomenon. Meanwhile, the special attention necessary training, as well as its management among the various provinces of the country, it seems to be necessary. In this study, we first mapped matrix provinces, according to the country's transport police department of education, was paid in 2010. Therefore, according to the first field studies and library, established the potential matrix, a matrix with 9 columns, including indicators, and 30 lines, including the provinces of the country. Then, using component -based methods, hierarchical cluster analysis, the provinces, based on education, transportation, graded and compared, was located. The results showed that, Tehran province, has the best performance, and the provinces of Sistan and Baluchestan, Khorasan, Kermanshah, Hamadan, Fars, Hormozgan, East Azarbaijan, Gilan, South Khorasan, Bushehr, Yazd, Semnan, Golestan, Ardebil, Zanjan, Qazvin, Kurdistan, kohgiluyeh Boyer Ahmad, Chahar Mahal and Bakhtiari, Qom, Lorestan and Ilam, has the weakest performance in knowledge management transport Police are.

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1. Introduction

Transportation industry, each country represents, economic status and level of industrial development of the country (Isfahan Governer, 2010), and behavior management, especially knowledge management, traffic police foundation is very important. In fact, the requirements and preliminary matter, we can strengthen learning, strengthen Teach psychological knowledge flows, strengthen future studies, the police, and administrative requirements, including changes in culture, erudition, and change the attributes of Command management of police, led by detective noted (ahmadvand and Rovhani, 2009). With the advent of the industrial revolution in the eighteenth century, cities focus population, activities and technological developments were wonderful. A wave of new and advanced technology, was formed in cities, the rise of the automobile industry, including the. Easy and quick access to people, vehicles and prosperity of its use, other than as a result of traffic accidents and physical development of cities, did not. In the developed countries, progress in tandem with the growth of cities has been. With Open Transportation and use private cars, a variety of relatively successful, for organizing the traffic, the country was formed. Department of Transportation Gemmell, one of the most influential sectors of society, the economy, and relative to other sectors, is important, and this part of the process of developing other economic sectors, the derivative and the interaction is increased. Regarding the share of value added of transport in GDP, which is between 7 to 10%, it is estimated, any changes and improvements in infrastructure, fleet and regulations governing the transportation of all kinds of changes in a remarkable turn the wheels economies, provides (Sadr, 2012). In fact, it can be said that the issue of transport, these days, everyone has suffered.

Road accidents, the leading cause of death worldwide, are considered. Over the past decade, on average, approximately 2/1 million people every year due to road accidents, are killed (Habibi Novkhandan, 2007). Traffic accidents in developing countries, like Iran, is of utmost importance. Human casualties, the worst consequence of any accident, the statistics in this area, is worrisome. According to a 2002 report Jhanr Health Organization (WHO), every year, more than one million two hundred thousand people, road accidents killed over 50 million people are suffering from serious injuries. According to statistics, the number of deaths and Jrhy comparison, the number of dead, wounded, 1 to 42 are, unfortunately, the ratio of 1 to 12 is our country, this figure represents the seriousness and severity of crashes have occurred (Farahmandian et al, 2011). Necrology accidents in our country, most of the developing countries and even some developing countries are. Approximately 10 percent casualty incidents, dies (Sadat Hosseini and Soleimani, 2009). In 2004, the World Health Organization, a program entitled " road safety is no accident ", to raise awareness of the damage and the cost of transportation road went. It shows that you can appropriate policy actions and the harm to be prevented (Jacobs, 2005). In Iran, 100 injured drivers, 24 people die while in England every 100 people, one person dies. The most recent study was done, it was found that in comparison to accidents, the number of deaths per 10,000 vehicles in the country in 2009 was equal to 33, while the index for most countries development, 10 to 12% (WHO, 2010). Hence, the issue of road safety is a global issue, and the need for planning and implementing the necessary training, transportation, traffic police and transport, thus reducing overall casualties in road accidents make demands.

Accidents and deaths resulting from them in the various influential variables and components (Pakgovhar ant et al, 2009), and the management of road accidents necessitate the need to identify, understand, and accurate analysis and training personnel, and those involved in this phenomenon. Meanwhile, the special attention necessary training, as well as the management of the various provinces of the country, it seems necessary, and also analyze the amount of attention the various provinces of the country, in this context, can, according to authorities in provide more services to disadvantaged

provinces, and little attention had sought, and the grounds for establishing guidelines and training more people involved in the traffic police, and increase the knowledge base will be.

2. Materials and methods

In this study, we first mapped matrix provinces, according to the country's transport police department of education, was paid in 2010. Therefore, according to the first field studies and library, established the potential matrix, a matrix with 9 columns, including indicators, and line 30 is included provinces (Table 1). Then, using component -based methods, hierarchical cluster analysis, the provinces, based on education, transportation, and was graded.

3. Factor analysis

In the factor analysis, we standardized the data and then using the correlation method, and the analysis has been rotation Varimax (Dennis, 1973: 47). The analysis carried out showed that 3 of the 4/86 percent cumulative variance is explained. Factor analysis model is as follows:

$$\begin{aligned} X_{1} - \mu_{1} &= \ell_{11}f_{1} + \ell_{12}f_{2} + \dots \ell_{1m}f_{m} + \varepsilon_{1} \\ X_{2} - \mu_{2} &= \ell_{21}f_{1} +_{\ell X_{1},\dots,X_{n}22}f_{2} + \dots \ell_{2m}f_{m} + \varepsilon_{2} \\ X_{p} - \mu_{p} &= \ell_{p1}f_{1} + \ell_{p2}f_{2} + \dots \ell_{pm}f_{m} + \varepsilon \end{aligned}$$

Observable random vector X with p elements, with mean μ and covariance matrix is Σ . Factor model, it is assumed that X depends linearly few random variable invisible F1, F2,... Fm, which they called a common factor, and p additional sources of variables $\varepsilon 1$, $\varepsilon 2$, $\varepsilon 3$,..., εp are, error or special agents, called (Hair, 1990)..

In Table 2, the values of loadings and variance explained by the six factors without rotation and the rotation is shown.

Table 3 loadings on each of the indicators of education, and knowledge of transportation, in the form of shows. According to this table, the four factors above, according to the loadings of each variable are named as follows.

First factor: The number of trained drivers

Second: occupational health and driver education

The third factor: the number of trained personnel transportation companies

Variable loads, suggests that alternative transport hazardous materials training, the highest weight in the drivers trained, have enjoyed. Second, the combination of the number of trained personnel, transportation companies, and professional ethics training has been. The third factor, dimensions and weights training time, training and transportation of hazardous materials, the maximum load (Table 3).

According to Table 4, the provinces of East Azerbaijan and Isfahan provinces of Gilan and kohgiluyeh and Boyer Ahmad maximum weight, minimum weight, and the number of trained drivers, enjoy (Figure 1). Tehran provinces, highest weights, and the provinces of Kermanshah and Isfahan, the lowest weight in the driver training, occupational health, are accounted for (Figure 2). Isfahan, the greatest weight, and the provinces of East Azarbaijan, Yazd, Hormozgan and minimum weight in the number of trained personnel, transportation companies, enjoy (Figure 3).

4. Zoning active province in the field of knowledge management police, transport, based on component-based

Overall weight of the three factors, based on the load factor, which has been established in every province, and integrate these factors in GIS, using computational tools Raster Calculator, the province with the highest activity have been identified (Figure 4).

Matrix of indicators and studies.

	The number of trained drivers	The number of trained personnel transporta tion	Ethics	Terms of Transpo rtation	Occup ational health and driver	Driving Skills	Inhibiti on of training time	Dimensi ons and weights training time	Transportati on of hazardous materials training
		companies							
East	43310	0	30	11806	0	1263	9820	11978	8413
Azarbaijan									
West	11530	1	866	1859	277	2450	3459	1224	1396
Azarbaijan	1050	0	0	657	0	0	010	150	120
Ardebii	1853	0	1740	12124		U 7469	910	152	128
Istanan	44115	0	1740	12134	569	7468	0358	171	8334
Ildiil Buchohr	005 2102	177	83 164	199	0	52	235	1/1	65
Tohran	2103	1020	104	200	1040	522 1210	202	129	0
Charmahal	7204	1050	001 /16	2009	1049	1219	2154 1101	2490	2252
Bakhtiari	7304	0	410	2437	0	0	1101	2079	1191
South	2943	0	221	1115	0	448	750	409	0
Khorasan	2545	Ū	221	1115	Ū	440	750	405	U
Khorasan	28809	275	3004	6551	0	1021	5225	6853	6430
Razavi		-			-	-			
North	5489	0	567	655	240	878	1077	831	1241
Khorasan									
Khuzestan	15872	0	683	2833	1114	1464	2940	3368	2470
Zanjan	5318	0	1151	1883	0	0	870	974	440
Semnan	1523	0	40	266	77	78	233	314	515
Sistan and	5975	0	1153	1773	0	1188	520	780	561
Baluchestan									
Fars	23868	0	1371	7319	0	1838	4169	4932	4239
Qazvin	3735	126	33	943	0	601	602	755	927
Qom	1192	0	0	189	0	197	261	286	259
Kurdistan	2088	0	0	534	0	420	229	508	397
Kerman	11201	0	1960	1601	233	1060	1516	3688	1143
Kermanshah	17311	0	789	7924	0	2511	649	4686	752
Kohgiluyeh	0	0	0	0	0	0	0	0	0
Boyer Ahmad									
Golestan	1819	0	0	0	228	30	281	421	859
Gillan	1532	0	0	179	482	120	18	617	116
Lorestan	4267	0	374	837	0	941	599	872	644
Mazandaran	7567	0	630	1606	520	2500	656	596	1059
Markazi	12273	0	319	3666	353	2542	1592	2987	814
Hormozgan	18869	0	0	6306	0	366	3553	4418	4226
Hamedan	15480	0	838	4996	0	1440	2285	3142	2779
Yazd	7878	0	0	2017	0	0	2322	2181	1358

Source: (The Road Maintenance and Transport, 2011).

the load factor of total variance explained by the factor.							
Cumulative scattering	with	Scattering with spin	Load Factor rotation	Cumulative diffraction	Diffrac tion	Load Factor	Components
spin							
58.717		58.717	5.285	60.425	60.425	5.438	The first factor
73.769		15.052	1.355	77.304	16.878	1.519	The second factor
86.400		12.631	1.137	86.400	9.096	.819	The third factor

Table 2

 			-	 			-		· /		-
Cu	mulat	ivo		Scatt	torir	nσ		103	d F	act	٨r

Table 3

loadings on the knowledge of transport, turning Covarimax.						
The	third	The second	The first	Components		
component	t	component	component	Factors		
0.011/21		0.06902	0.006408	The number of trained drivers		
0.011431		-0.00805	0.330436	The number of trained univers		
0.510471		0.79715	0.115269	The number of trained personnel		
				transportation companies		
-0.24654		0.255285	0.567731	Ethics		
0.015715		-0.1593	0.949672	Terms of Transportation		
-0.1814		0.837664	0.214755	Occupational health and driver		
-0.60103		0.200985	0.699568	Driving Skills		
0.21929		-0.12942	0.927008	Inhibition of training time		
0.188514		-0.15481	0.94525	Dimensions and weights training time		
0.138446		-0.07501	0.958876	Transportation of hazardous materials		
				training		



Fig. 1. Spatial distribution of the number of drivers trained.

	The first component	The second component	The third component
East Azarbaijan	3.14704	-0.16082	-2.48579
West Azarbaijan	-0.00472	-0.26118	0.98611
Ardebil	-0.67931	-0.26856	-0.61517
Isfahan	2.50964	-0.70073	2.99009
llam	-0.78559	-0.28487	-0.47833
Bushehr	-0.66756	0.32348	-0.48772
Tehran	0.07119	4.91151	0.11215
Charmahal Bakhtiari	-0.19798	-0.25783	-0.66932
South Khorasan	-0.62667	-0.36062	-0.28623
Khorasan Razavi	1.79898	0.83916	-0.43567
North Khorasan	-0.46843	-0.09328	0.32725
Khuzestan	0.12813	0.92328	1.51491
Zanjan	-0.40262	-0.28484	-0.13252
Semnan	-0.7407	-0.19049	-0.39621
Sistan and Baluchestan	-0.42635	-0.4951	0.4946
Fars	1.19437	-0.49894	-0.07764
Qazvin	-0.52084	0.13371	-0.54676
Qom	-0.75638	-0.3068	-0.46127
Kurdistan	-0.69413	-0.34825	-0.37835
Kerman	0.01631	-0.11288	0.82339
Kermanshah	0.4311	-0.80755	0.56068
Kohgiluyeh Boyer Ahmad	-0.85839	-0.2855	-0.48922
Golestan	-0.74391	0.01639	-0.23883
Gillan	-0.86861	0.28313	0.24983
Lorestan	-0.53037	-0.42433	-0.02461
Mazandaran	-0.50034	-0.07239	1.64334
Markazi	-0.03102	-0.27682	0.9559
Hormozgan	0.86567	-0.24638	-1.3593
Hamedan	0.44382	-0.48451	-0.08146
Yazd	-0.10232	-0.20801	-1.01387

Table	4
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loadings on the provinces studied, the rotation Covarimax.



Fig. 2. Spatial distribution of factors driver training, occupational health.



Fig. 3. Spatial distribution of the number of trained personnel transportation companies.



Fig. 4. Zoning active of provinces of the transport police.

As is evident from Figure 4, provinces (Tehran, Isfahan, and Khorasan province), have good performance, and provinces (North Khorasan, Gilan, Mazandaran, East Azarbaijan and West, Markazi, Hamedan, Kermanshah, Fars and Kerman), average yield, and provinces (Sistan and Baluchestan, Hormozgan, southern Khorasan, Bushehr, Yazd, Semnan, Golestan, Ardebil, Zanjan, Qazvin, Kurdistan,

kohgiluyeh Boyer Ahmad, Chahar Mahal and Bakhtiari, Lorestan and Ilam), State the poor performance requirements.

5. A gap analysis

Distance method, parameters are grouped according to the distance between them is done. The views or components have less distance from each other, are placed in a group.

" Cluster analysis, to reduce the dimension of variables, the most widely used. The real value of this approach when it becomes clear that we want a large matrix of data, we analyzed »(yarnal, 1993).

In this grouping, subjects within groups are very similar to each other but are significantly different from other groups (Kalantari, 2010). Segmentation process, using cluster analysis, is as follows

A) the provision of raw matrix data.

B) determining factor score for each station, using factor analysis.

C) integration, the minimum variance method (Ward's method), and determine the final grouping.

D) Finally, Dendrogram drawn, the result of merging groups, in several stages, the greater the internal correlation between variables is closer, come a number of factors will be lower.

To determine the distance between clusters, the method has been used. Clustering process, all the observations in proportion to their distance, can be grouped. Thus, the first observation together, and then the next nearest clusters, are merged. Beginning of the clustering process, the number of observations, there is a cluster, and the last step, all observations are gathered in a cluster (Alijani, 2002: 175).

Finally, Dendrogram analysis interval is shown in Figure 5.



Fig. 5. Tree Clustering accident provinces.

According to the graph of a cluster was identified (Figure 5), the provinces of similarities in educational management, and knowledge of police transport, in three areas separated, in Tehran alone in

an area located in the province of weight training, occupational health driver, is the separation of the other provinces. Isfahan, Khuzestan, Mazandaran, Kerman, Markazi and Western Azerbaijan, transport and education are the most common. In these provinces, the number of trained personnel, transportation companies, is dedicated to the greatest weight. The next school district, including the provinces of Sistan and Baluchestan, Khorasan, Kermanshah, Hamadan, Fars, Hormozgan, East Azarbaijan, Gilan, South Khorasan, Bushehr, Yazd, Semnan, Golestan, Ardebil, Zanjan, Qazvin, Kurdistan, kohgiluyeh Boyer Ahmad, Chahar Mahal and Bakhtiari, Qom, Lorestan and Ilam province also in terms of the number of trained drivers, have similar circumstances. (Figure 6).



Fig. 4. Zoning active provinces, the knowledge of the transport police.

6. Research findings

In this study, the component -based approach to the same zoning district, and how knowledge management is used to transport police. The results showed that, of the three basic components of the method is about 4/86 % of the variance in the data is explained.

hese factors are named as follows:

First factor: The number of trained drivers

Second: occupational health and driver education

The third factor: the number of trained personnel transportation companies

The weighting of the elements, and combining them in GIS, educational and transportation areas were identified (Figure 4). Accordingly, provinces (Tehran, Isfahan, and Khorasan province) has a good performance, and provinces (North Khorasan, Gilan, Mazandaran, East Azarbaijan and West, Markazi, Hamedan, Kermanshah, Fars and Kerman), the average performance and provinces (Sistan and Baluchestan, Hormozgan, southern Khorasan, Bushehr, Yazd, Semnan, Golestan, Ardebil, Zanjan, Qazvin, Kurdistan, kohgiluyeh Boyer Ahmad, Chahar Mahal and Bakhtiari, Lorestan and Ilam), provinces with poor performance requirements.

A gap analysis with Ward's method and Euclidean distance, four homologous regions, in terms of accidents were identified:

Tehran, alone in an area located in the province of weight training, occupational health and driver, causing it to separate from the other provinces, it is. Isfahan, Khuzestan, Mazandaran, Kerman, Markazi and Western Azerbaijan, most similar in their education and transportation. In these provinces, the

number of trained personnel, transportation companies, is dedicated to the greatest weight. The next school district, including the provinces of Sistan and Baluchestan, Khorasan, Kermanshah, Hamadan, Fars, Hormozgan, East Azarbaijan, Gilan, South Khorasan, Bushehr, Yazd, Semnan, Golestan, Ardebil, Zanjan, Qazvin, Kurdistan, kohgiluyeh Boyer Ahmad, Chahar Mahal and Bakhtiari, Qom, Lorestan and Ilam province also in terms of the number of trained drivers, the same conditions (Figure 7). Finally, the results of the two methods to achieve more accurate outcome, were compared (Table 5).

Table 5

Comparison of the results of the two methods of factor analysis and cluster

Cluster Analysis	Factor Analysis	Operation Index
Tehran	Tehran Isfahan and North Khorasan	Good performance
Isfahan, Khuzestan, Mazandaran, Kerman,	North Khorasan, Gilan, Mazandaran,	Average
Markazi and West Azarbayijan	East Azarbaijan and West Azarbaijan, Markazi, Hamedan, Kermanshah, Fars and Kerman	performance
Sistan and Baluchestan, Khorasan, Kermanshah, Hamadan, Fars, Hormozgan, East Azarbaijan, Gilan, South Khorasan, Bushehr, Yazd, Semnan, Golestan, Ardebil, Zanjan, Qazvin, Kurdistan, kohgiluyeh Boyer Ahmad, Chahar Mahal and	Sistan and Baluchestan, Hormozgan, Southern Khorasan, Bushehr, Yazd, Semnan, Golestan, Ardebil, Zanjan, Qazvin, Kurdistan, kohgiluyeh Boyer Ahmad, Chahar Mahal and Bakhtiari,	Poor performance
Bakhtiari, Qom, Lorestan and Ilam, South Khorasan	Lorestan and Ilam	
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Thus, according to the table above you can see that, Tehran province, has the best performance, and the provinces of Sistan and Baluchestan, Khorasan, Kermanshah, Hamadan, Fars, Hormozgan, East Azarbaijan, Gilan, South Khorasan, Bushehr, Yazd, Semnan, Golestan, Ardebil, Zanjan, Qazvin, Kurdistan, kohgiluyeh Boyer Ahmad, Chahar Mahal and Bakhtiari, Qom, Lorestan and Ilam, has the weakest performance, should be transported in police knowledge management.

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