

# The Consequences of Uneven Distribution of Private and Public Transport Vehicles in Both the Commercial and Residential Sectors, With Emphasis on Reducing Traffic in the City of Kermanshah

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## ABSTRACT

This uneven distribution of outcomes in relation to private and public transportation vehicles with a focus on low and moderate traffic is in Kermanshah. The overall objective of this study was to investigate the effect of spatial inequality as one of the most important aspects of the transport network and the traffic is in Kermanshah. In this study, using one way variance and Duncan's test experience and Independent T 1391 data and application software SPSS and Excel to examine relationships between variables were examined. Results of the traffic in the bus business sector than the residential sector Contrary to public transport vehicles in the residential sector of the commercial sector and Independent t-test showed that the average vehicle traffic is significantly different in the two sectors.

**Keywords:** Private and Public Vehicles, Traffic, Spatial Inequality, Kermanshah City.

## Introduction

Traffic Every day, millions of people live in big cities is wasting hours of time In addition, increased fatigue and stress, lowered their threshold and indirectly affects the functioning of society. Nowadays traffic in major cities of the country has become a critical issue, Kermanshah to Tabriz is the second largest city in the West Country In recent years, the increasing population and the growing trend of migration into cities, villages and other residents have been problematic Traffic, causing vehicles on city streets is (Kermanshah City

Comprehensive Plan, 2006). Among the metropolitan cities of Kermanshah is located in an area of 24,361 square kilometer and use of the various parts of the city and the city's transport system needs to be considered comprehensive. Consequences of traffic and population increases day by day become more complex in the city of Kermanshah. Since a comprehensive study on the status of vehicles in different parts of the city have been traffic, So we have tried to study the traffic is related to the purpose of this research project is reviewed studies, these

studies are: The results of a study to assess noise pollution from traffic in the city of Kermanshah paid in the first quarter of 2000 showed that the background noise is high in Kermanshah, As of 50 L and 90 L in Kermanshah dB 1/4  $\pm$  68 and 4/4  $\pm$  63 are estimated, The results showed that the city of Kermanshah and noise pollution have a higher standard than the standards in most cases is (omidvari *et al*, 2002). A study designed to evaluate the traffic assignment model for urban freeways and major roads have expressed and legit models were used to investigate the factors influencing the selection and modeling methods in this field, the best way to design an appropriate model to provide. In this study, the importance and role in choosing the type of device, In addition to considering how to choose a path, select the type of career path was considered in the making of models by sequential and simultaneous selection - is the (Efendi Zadeh and Hdadzadgan, 2005). The results of a study to assess the effects of traffic noise on public health and mental Yazd citizens have Police officers showed that the most affected group in terms of the impact of traffic noise and traffic noise was minimal academic In terms of general health status and depression, as well as the total score was significantly different between groups at the level of 0/05 was observed, But the other sub-scales (somatic symptoms, anxiety and insomnia, Narsaknsh emotional, social) were significantly different between groups at the level of 0/05 no. In all groups surveyed, the sound of motorcycles as the most annoying traffic noise was introduced in the city (Vaisi *et al*, 2007). The results of a study to evaluate and measure the noise pollution caused by traffic in the city have shown that in the 10-fold lower average equal voice in the streets Jomhori Fallahi to 2/74 dB Net

weight (A) and the highest average equivalent sound level Ayatollah Kashani Street 9/77 dB net weight (A) was recorded. The study measured the amount of noise in all areas of Iran standard (Vaisi *et al*, 2007). The authors examine the challenges and prospects for the security and payment of traffic Road and traffic safety, and stated that one of the major areas of human community needs Attention and dedication to ensure that it is considered an undeniable necessity of introducing the relevant governmental and non-governmental, multilateral and extent of the diversity and complexity to the effect of multiple areas of social and individual citizens reveal. Finally, the traffic safety situation and provide expert analysis depicts statistical information. In this regard, refer to the detailed list of security challenges in the way of traffic and their strategies by providing a vision of opportunity and tackles in the country (Rouhani, 2009). Research scientist in Tehran metropolis with an urban integrated management system approach with an emphasis on sustainable urban development began the results showed that due to lack of expertise and familiarity with the problems of city traffic managers Rise too many problems in the transport sector and other sectors is (Sadeghian *et al*, 2012). In a research study and enjoy the city of Isfahan levels of the indices of civil service pay The results showed that the utilities on the Isfahan first floor and the cities and Kashan and Lenjan were in the second and third floor And urban design and transport systems in cities of the first class standard is (Ghanbari, 2012). Researchers study the spatial order of Kermanshah province (1976-2006) began And results showed that there is a strong counterbalance in the city of Kermanshah Province So that the city of Kermanshah with diverse functions And areas of strong

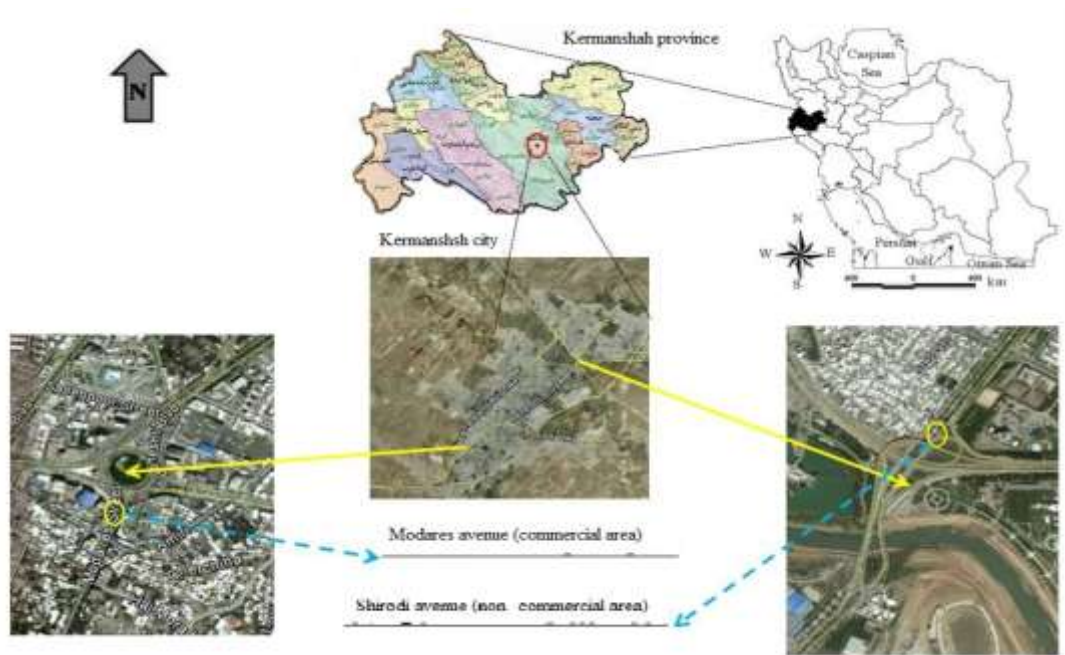
performance has a prominent position in the national and regional And the capture of a city dominated by the imbalance in the traffic and transport system has been (Ghaffari Giylankeh and Yazdani, 2012). Due to metropolis of Kermanshah and not taking perform basic studies direction evaluate and compare the traffic situation in different parts Comprehensive and complete investigative is needed direction

compare the situation vehicle traffic in residential and commercial sectors were investigated.

## Materials and methods

### Study site:

To run this research Kermanshah city in Kermanshah the province was selected (Figure 1).



**Figure 1.** Location of site study in the Iran and Kermanshah province

## Sampling

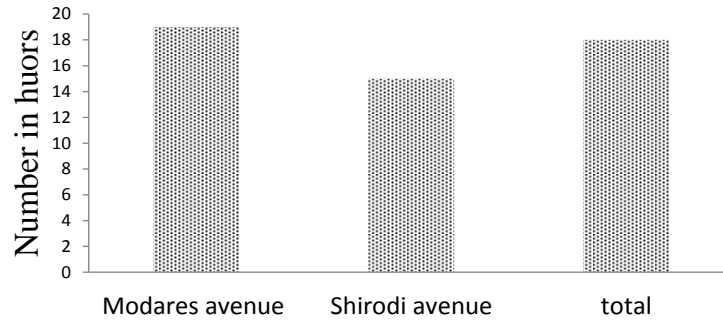
To perform this study, two commercial user (ST Modares) and residential users (Boulevard Shirudi) was selected. At the beginning of every street, every day at three the time specified in the morning (7:30 to 8:30), afternoon (12:30 to 1:30) and Sunset (5:30 to 6:30) Attempting to counting the number cars passing the separation taxis, personal cars and truck and collecting statistics for the month was Persian date February 2012. Stats taken at three the specified time on Saturday (beginning of the week), Monday (mid-week) and Thursday (last week) and the total inventory to a month and a total of 36

times (each one hour) were sampled. Data analysis was performed in order separately the traffic condition of the vehicle was measured three times, and three days a week. Using one way variance and Duncan's test experience and Independent T for data analysis and data analysis software was used SPSS16 and Excel.

## Results and discussion

Vehicle traffic is direct traffic on the streets of and awareness of the status of vehicle traffic managers' traffic can have a

positive impact on present and future decisions.



**Figure 2.** Status of transport buses in two commercial and residential sectors Kermanshah



**Figure 3.** Status of taxi traffic in both commercial and residential sectors Kermanshah

Figure 2 shows that the average number of bus traffic on the street in time Modares (business segment), more than Shirudi Street (part noncommercial) is.

Figure 3 shows that the average travel time in taxis on the street Shirudi (non-

commercial) from Modares Street (business segment) is.

Figure 4 shows that the average number of vehicles crossing the street at Shirudi personal (non-commercial) from Modares Street (business segment) is.



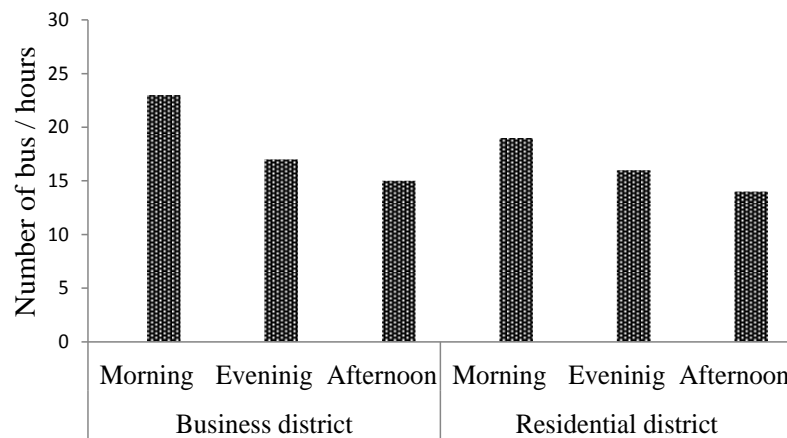
**Figure 4.** Status of individual vehicles traffic in two commercial and residential sectors Kermanshah

**Table 1.** Results of independent t test to compare the situation two parts of commercial and non-commercial traffic in the city of Kermanshah

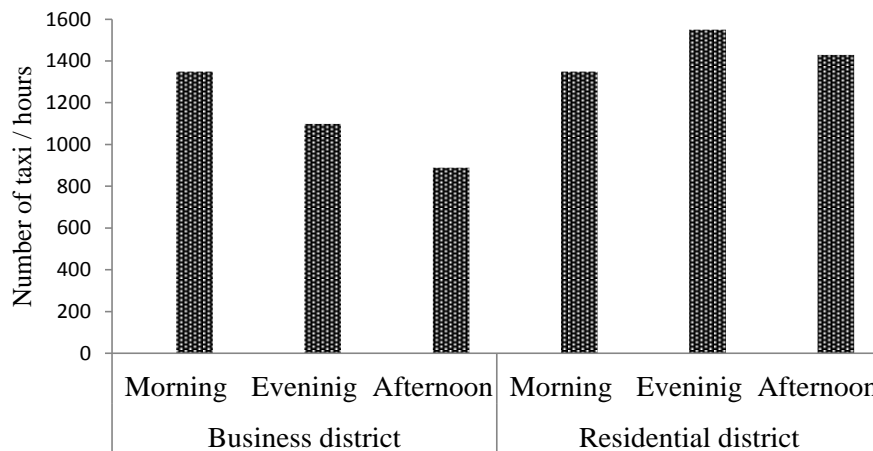
Kind of machine	df	T	Sig.
total	17	3.132	0.005
bus	17	2.312	0.000
taxi	17	2.543	0.000
Private	17	3.001	0.002

Figure 4 shows that the average number of vehicles crossing the street at Shirudi personal (non-commercial) from Modares Street (business segment) is. Independent t test results showed that the average crossing per hour vehicles bus of taxi there is a significant difference person.

The results shown in Figure 5, the average number of bus crossing in the two sectors in the noon hours of the morning and the evening was and Duncan test indicated that the difference between the average crossing buses in different parts of the day is meaningful.



**Figure 5.** At crossing Breakdown of bus the time of day in both the commercial and residential sectors Kermanshah



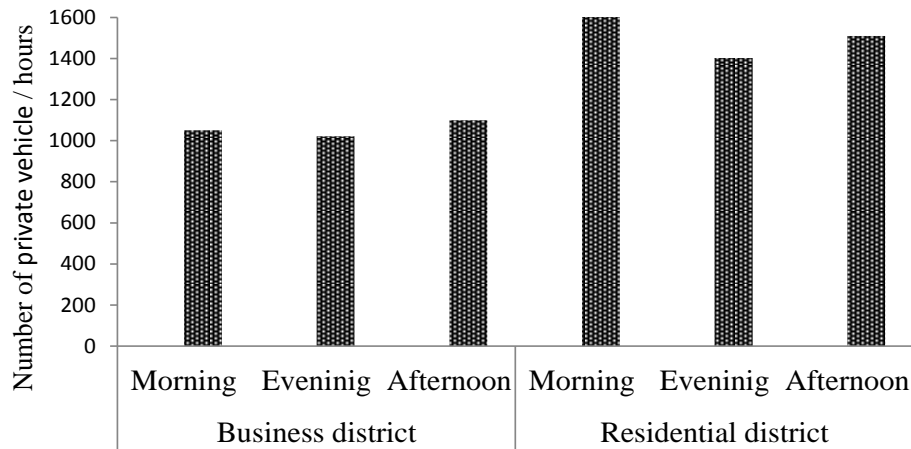
**Figure 6.** Breakdown of taxi time crossing Status on both commercial and residential sectors Kermanshah

The results shown in Figure 6, the average number of taxis traffic in the two sectors in the noon hours of the morning and the evening was Duncan test indicated that the difference between the average the day traffic of taxis in meaningful.

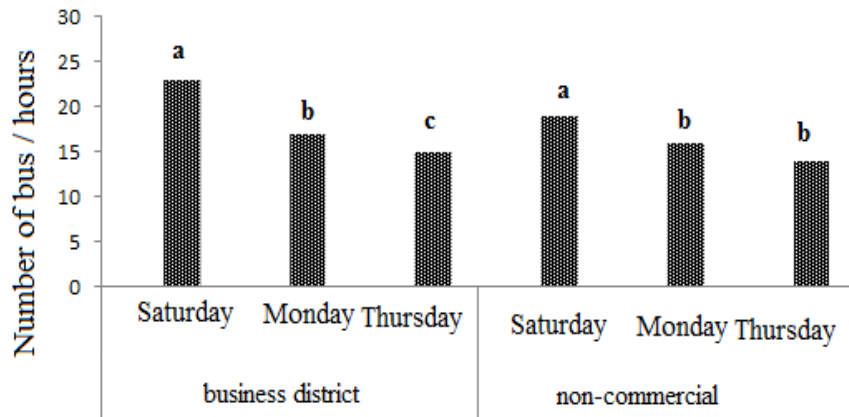
The results shown in Figure 7, the average number of vehicle traffic in personal time in the two sectors in the morning and evening than at noon has been and Duncan

test showed that the difference between the average traffic private vehicles in different parts of the day meaningful.

The results shown in Figure 8, the average number of bus traffic at the two sections of the weekend on Saturday rather than Monday Duncan test indicated that the difference between the average traffic buses at various times a week is meaningful.



**Figure 7.** Breakdown private vehicle traffic at the time of day in both the commercial and residential sectors Kermanshah

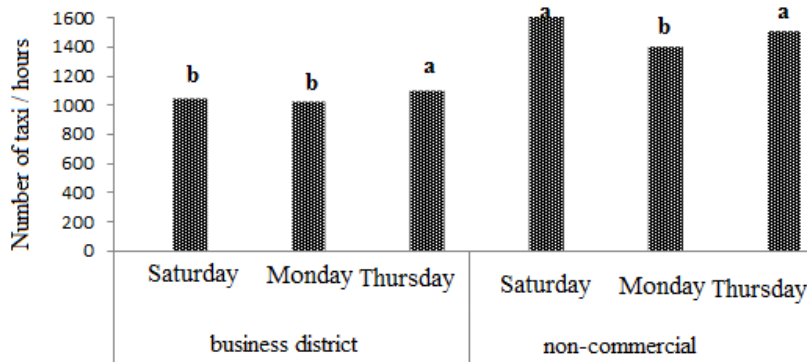


**Figure 8.** Breakdown bus traffic situation during the week in both the commercial and residential sectors Kermanshah

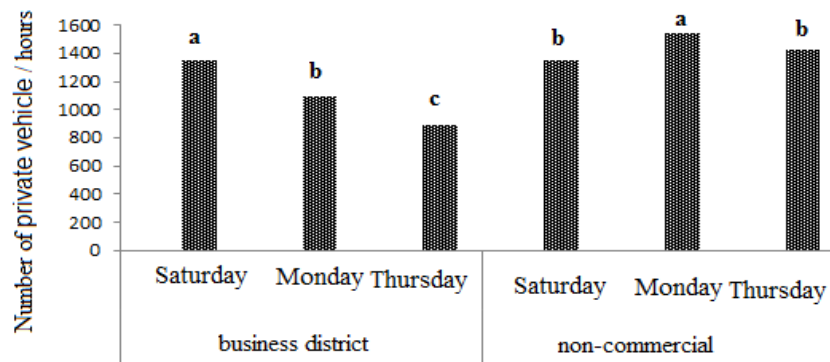
The results shown in Figure 9, the average traffic time in taxis in the two sectors are Monday through Thursday and Saturday More.

The results shown in Figure 10, the average number of vehicle traffic in personal time in the two sectors on Saturday (business segment) and Monday (residential sector) from Thursday has been and Duncan test showed that the

difference between the average traffic taxis during different week is meaningful.



**Figure 9.** The separate State traffic taxis in both commercial and residential Kermanshah week And Duncan test indicated that the difference between the average traffic taxis at different times of the week is meaningful.



**Figure 10.** Availability of personal traffic vehicles for commercial and residential differentiation during week two of Kermanshah

**Table 2.** Results of One-way analysis of variance test to examine the difference between the separation of traffic at different times of the day and different days of the week

Kind of machine	Source	df	Mean of square	F	Sig.	
Different section of day	Bus	Between group	2	7.356	13.151	0.000
		Inter group	15	0.65		
	Taxi	Between group	2	0.453	8.089	0.000
		Inter group	15	0.056		
	Private	Between group	2	11.453	7.393	0.000
		Inter group	15	1.549		
total	Between group	2	1.519	7.065	0.000	
	Inter group	15	0.215			
Different day of week	Bus	Between group	2	3.153	5.795	0.000
		Inter group	15	0.554		
	Taxi	Between group	2	2.645	34.802	0.000
		Inter group	15	0.076		
	Private	Between group	2	1.317	16.744	0.000
		Inter group	15	0.79		
total	Between group	2	0.590	5.009	0.000	
	Inter group	15	0/10			

Results are shown in Table 2, the average number of bus traffic, taxi, and private vehicle traffic in three different parts of the day is a significant difference and the number traffic by bus, taxi, and private vehicle traffic on three different days of the week and the difference is meaningful.

## Conclusion

Kermanshah including the major cities of the country that has a different user segments and normally every user needs a certain displacement and transport vehicles And knowledge of the status of vehicle traffic in residential and commercial sectors can take urban transportation system shortcomings and defects specified can And managers on decisions do now and in the future (long-term) to help. This study implications of attempt has been made the skewed distribution of private and public traffic vehicles in both the commercial and residential sectors And its impact on reducing traffic in the city of Kermanshah be examined. Results of statistical analysis showed that the shapes and traffic of commercial buses in the residential sector has been Conversely, taxis and private vehicles traffic in the residential area of the business district was And t tests emphasized that the average traffic of vehicles in the two sectors are significantly different (Fig. 2, 3, 4 and Table 1). Therefore conclude that due to commercial traffic at the town trying to use more public transport and reduce the number of buses in the residential sector is suggested to increase the number of buses in the residential sector. The results showed that the average traffic time for buses and taxis at evening than in the morning and evening But in the age of personal vehicles were traffic more experience and test results showed that the variance between vehicles traffic in

different parts of the day are also significant differences. Results have shown that the average number of buses per hour traffic at two sectors most of Monday and the weekend is on Saturday And Duncan test confirm the difference between the average traffic times of buses at different weeks (Figure 8). Results have shown that the average number of taxis traveling in the two sectors on Thursday and Saturday hours are from Monday Duncan's test indicated that the difference between the average commuter taxis during a week meaningful different (Figure 9). Results have shown that the average number of hours in the two sectors, private vehicle traffic on Saturday (business segment) and Monday (residential sector) were more Thursday Duncan test indicated that the difference between the average commuter taxis during a week meaningful different (Figure 10). General conclusion that in the early weeks of more buses, but taxis are more early and late week. More than one device can be used to end the week. Results have shown that the average number of bus transportation, taxi, vehicle traffic on three different days by the same person and the difference is meaningful And the average number bus transportation, taxi, vehicle, person traffic in three different days of the week are also significant difference (Table 2). For better management it is suggested that of urban traffic, public transportation more of the weekend to be less personal and one riders use.

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