

Evaluation of human-oriented transport in city hall transportation projects approach to sustainable (Case Study of the Kerman city hall)

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Abstract: In Iran, the implementation of public transport and non-motorized transport infrastructure warrants the need to allocate adequate funding from the state and city hall. In this regard, in City hall Development Plans (the format approved by the Ministry of Interior), urban transportation plan has been one of the ten chapters. The purpose of this paper is to review and evaluate the role of Human-oriented transportation in the city halls development plans and programs, Therefore the amount of funds allocated to the transport sector in Kerman city hall development plans and programs has been investigated for a period of six years (2009-2014), comparative analysis method has been used for this study. Results of the analysis indicate that the budget allocated to the development of the vehicle-oriented transportation is much more than human-oriented transportation and in fact human-oriented systems of transport such as walking and cycling are considered less than the others. Also in the old fabric of Kerman city that has formed on basis of the human- oriented transportation the lowest level of funding is intended to regulate transportation. With this description it is clear that achieving sustainable development and human- oriented in urban transport sector, fundamentally needs paradigm shift in urban transport development and revision in the attitudes of managers and planners and in the meantime it is necessary to correct the programming cycle of urban development along with review of the allocating funds mechanism and define projects in various sectors.

Key words: Sustainable transport; Human- oriented transportation; Non-motorized transport; The funding of city hall programs

1. Introduction

According to recent U.N. statistics, the majority of the world's inhabitants live in cities, many of which are developed without public and sustainable transportation infrastructure (United Nations Human Settlements Programme, 2013). In these cities they often use cars for trips within the city and other transportation options such as cycling, walking are rarely used (Schwanenm, 2002). Traffic disrupted presence in these cities in recent decades and lack of infrastructures for movement of this volume of vehicles, make inappropriate living conditions for residents and has created major traffic issues (Khaksari and Kheradmand, 2013). Vehicles and generally motorized transport equipment need extensive communication network, countless intersections, much flooring, roads, bridges, highways and parking that all of these involve major costs and on the other hand, they cause the extent and distribution of land uses and spaces (Bahrayni et al., 2009). Francis Tibaldz believes that the construction of roads in addition to being costly, damage to the environment. His solution for the traffic problem is to use public transport and pedestrian traffic (Tibaldz, 2001). While in part of the West world people are trying to get release of the

car and they try to dominate the desirable aspects of the city's pedestrian and transit revive (Soltani, 2014).And Proponents of walking and bicycling active modes of transportation commonly cite benefits to both personal health and the environment (Piatkowski, 2015) .In many developing countries without significant development in the transit system, jump from walking cities to car-oriented cities (Schiller et al, 2010). In developed countries the subject of human-oriented transport (as one of the pillars of sustainable transport) instead of car-oriented has created a big change in their attitude about transport and especially in the environment. An attitude that is considered the people transportation instead of vehicle transportation. The result of such an approach was placing priority of public transportation, Strengthening and expanding the network of sidewalks and bike lanes, considering the urban spaces to create the motivation for walking. human- oriented transport is the main approaches to urban environmental protection that in many developed countries try to distance themselves from vehicle-oriented transportation as much as possible and replace human-oriented transportation (Khaksari and Kheradmand, 2013). The city and transportation planners can provide field of non-motor patterns in traffic network and lead the transportation of the cities to the human- oriented

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transport, in form of guidance city hall projects with low costs. Access to a city where walking and cycling are values, priorities and common is not an imaginary program and it is easily possible so that human experience has shown and it is necessary that attention be paid to develop this system in the city plans (Ahadi, 2011). In Iran, allocate adequate funding from both government and municipalities is essential for implementation of infrastructures of public and non-motorized transport.

In this article, urban traffic plans have been titled as one of the ten chapters in the five-year plans of city halls (format approved by the Ministry of Interior). This paper examines the content and documents related to the amount of funds allocated to the traffic in the Kerman City hall Development Program and comparative analysis method is used to check the status and importance of development of the human-oriented and sustainable transportation planning and urban management.

2. Literature Review

Studies of urban transport have many changes over the past 50 years. The main emphasis of transportation studies in the early decades was on the increasing capacity to meet the rising demand for travel by motor vehicles. Next Studies, concerns the emphasis on pathways capacity development, showed widening of city streets, unlike popular belief not lead to a reduction in traffic volume and intensity (Jahanshahi, 2005). The results of an experimental study at the University of California at Berkeley, shows that for every 10 percent annual increase in roads capacity, 9 percent will be added to traffic volumes in 4 years. About 60 to 90 percent of the new road capacity is become full in 5 years. Total traveling by vehicles increase 1 percent, for every 2 to 3 percent increasing in highways (Hansen and Huang, 1997). Newman and Kennethversi study on different cities around the world shows that more use of cars, will increase consumption of gasoline and pollution. The progress of urban transport systems in the world shows that the auto industry in recent decades has changed approach to the implementation and use of public transport (Gurr, 2005).

Recently, several reports and other publications have estimated various benefits of walking and bicycling based on the share of vehicular travel that could be replaced by AT. The California Department of Public Health (CDPH) applied its Integrated Transport and Health Impacts Model (I-THIM) to illustrate impacts of long-term AT substitution scenarios. The most ambitious scenario modeled for the San Francisco Bay Area predicts a 45% reduction in GHG emissions and 2236 fewer deaths and 22,807 years of life gained by 2035 (CDPH, 2011). Grabowetal (2012) estimate AT substitution scenarios in terms of environmental impacts (as particulate matter reductions) if all round-trips under eight kilometers by on-road light-duty vehicles were replaced by AT. Substitution potential

scenarios yield estimated savings as high as \$4247.5 million (Grabow et al., 2012).

Anthony Danz, an economist at the Brookings Institution, believes that traditional approaches to solve the traffic problem was trying to "enlarging pipes" and in other words was developing the streets. However, this approach only temporarily solves the issue. He believes that, to solve the problem of traffic we must decrease the volume of fluid or, "the number of vehicles" which is reduced by increasing the effects of traffic at peak hours or on busy streets (Research Center of Mashhad City Council, 2008).

Developing pathways and after that build bridges and non-coplanar intersections, alone will not solve the traffic problem, but It is possible that become helpful in aggravation and in some ways will result moving traffic from one point to another (Fig. 1).

3. The study area

The study area is the capital of Kerman province, Kerman City. The city has four urban region and has a population about 650 thousand people. (Department of Statistics and Planning of Kerman City, 2014). According to surveys conducted in the city more than 50% of the citizen's transport with personal vehicles or passenger carrier transport except taxis that this issue is considered as the main source of air pollution in the Kerman city. Today the safety caused by traffic is the main concern of this city. In 2009, 19200 traffic accidents have been recorded in the Kerman city, and crowded urban paths such as Azadi Square and Jomhoori Blvd are the most accident prolific areas. The lack of adequate security caused by high seismicity accidents on the sidewalks nearby the main arteries, has reduced the utility of these trails. In Kerman city, public transport systems include buses and taxis. Already in Kerman city in 3 regions, about 152 thousand passengers are transported by bus every day, Also, about 5 thousand taxis move about 300 thousand people every day (The Department of bus in kerman city hall, 2014), But the willingness of residents to use personal cars is caused a slow transport in the main axes of the city center. Some experts say one reason for the high volume of traffic in Kerman is annual increase of 30 thousand units of vehicles traveling on the streets of this town (The Deputy of Kerman City hall Transportation Planning, 2014).

4. Theoretical framework

4.1. Sustainable and human-oriented transportation

Nowadays what the world transport experts agree on it is achieve to human-oriented and sustainable transport model so it can provide a safe, quiet urban landscape of the city with fast, safe and efficient for all citizens (Hallo and Manning, 2009).

The CST, Centre for Sustainable Transportation, developed a definition of sustainable transportation system:

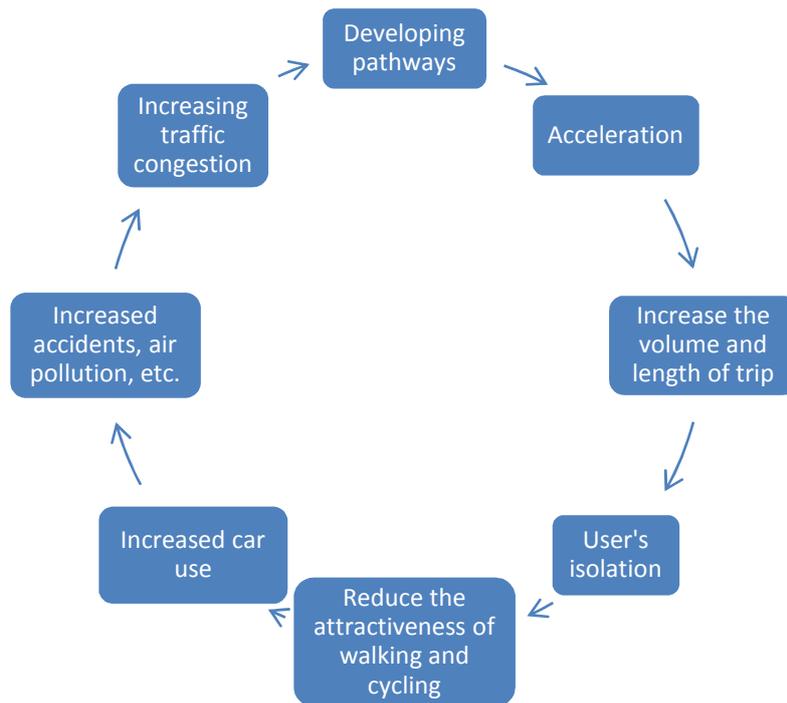


Fig. 1: The sequence of pathways and traffic congestion

Allows the basic needs of individuals and societies to be met safely and in a manner consistent with human and ecosystem health. This is affordable, operates efficiently, offers choice of various transportation modes, and supports a booming economy. Limits emissions and waste so that plants are able to absorb them, minimizes consumption of non-renewable resources, limits consumption of renewable resources to the sustainable level, reuses and recycles its components, and minimizes noise pollution and use of land (Haghshenas et al., 2014).

The concept of sustainable transportation is vital to ensure environment clean, healthy and high quality. The conceptual so emphasis on the human

life and the environment, to meet current and future needs. Today, the transportation systems in major cities have shown a bad image because of have traffic congestion, accidents, lack of access to public transport and carbon emissions to the atmosphere of space contributes to environmental pollution and imbalance in terms of quality of life in general mobility. Along with the promising concept of sustainable transport services to consumers and at the same time ensure the safety of road users and also help towards the welfare and the environment (Mat Yazid et al., 2011). Transportation facilities and activities have significant sustainability impacts, including those listed in Table 1.

Table 1: Transportation impacts on sustainability (Litman and Burwell, 2006)

Economic	Social	Environmental
Traffic congestion	Inequity of impacts	Air and water pollution
Mobility barriers	Mobility disadvantaged	Habitat loss
Accident damages	Human health impacts	Hydrologic impacts
Facility costs	Community interaction	Depletion of non-renewable resources
Consumer costs	Community livability	
Depletion of non-renewable resources	Aesthetics	

Sustainable transport system can be defined also as a transportation demand but does not affect future transport demand (Black, 1997). And Sustainability is". Sustainability is not about threat analysis; sustainability is about systems analysis. Specifically, it is about how environmental, economic and social systems interact to their mutual advantage at various space-based scales of operation"(World Commission on Environment and Development, 1987).

Transportation planning that is able to promote the concept of sustainability, refers to a comprehensive and strategic planning that consider the long time and indirect effects of environmental, social and economic components and boost the sustainable planning that emphasize on development instead of growing as enhancing quality factor and consider the resource constraints and risks, including the reduction of fossil fuels and climate changes (Litman, 2011). New strategies for

urban transportation based on sustainable transport policy insist on qualitative and quantitative. Developing of public transport, increase ability to walk or increase the potential for using non-motorized systems such as walking and cycling, travel demand management, reduce the use of private cars and promotion of traffic (Tajdar and Akbari, 2009). In fact designing walk spaces in the twentieth century was a rejection to modernization of traffic and the development of consumer culture (Zacharias, 2001). Approach of sustainable transportation follows principles such as human-oriented, the prioritize access, street as crossing space and substrate interview, the integration of people and traffic and traffic calming, developing public transport infrastructures and correcting the behavior patterns and escalating rules for reduce the effects of vehicles. Humanistic approach in urban transportation is a significant factor in reducing dependence on vehicle. Environmental factor can play a role in inhibiting the motor patterns and encourage people to walk and ride bicycles (Moieni, 2011). Achieving the goals of sustainable transport and increasing the share of non-motorized transport in urban travels, requires a combination of policies related to the use of new technologies, economic incentives and disincentives, along with a review of the principles and methods of urban planning. Walking and cycling are accommodating with environment and sustainable transportation and in order to replace them with the motor vehicles in short-distance trips they required to make infrastructures and components (Soltani, 2014).

However, walkability does not inevitably eradicate car dependency. People may live in walk able neighborhoods in which they can walk to the grocery store or their gym, but they may still need a car to get to work or other places (Gilderbloom et al., 2015).

4.2. Non-motorized transport (NMT)

Non-motorized transport (NMT), cover walking, cycling and other modes of transport (skates, wheelchairs, carts), in which the required force to move people and goods provided through the muscle force (Litman, 2012). Non-motorized transport modes are often considered as essential element of sustainable transport system. This includes walking, cycling, rickshaws, animal-drawn carts and rollerblading or skating (Raha and Taweessin, 2013). These physical activity related to transport (TPA[†]), currently are discussed as a sustainable solution to decrease the burden on public health and transportation (Badland et al., 2008).

NMT which includes walking and cycling is increasingly being favored as an attractive alternative to motorized commuter journeys by policymakers and environmentalists. Favorable NMT policies and increased NMT mode share can provide both personal and social benefits. The individual

benefits are improved health and fitness, basic mobility, improved accessibility and cost effective travel. The social benefits are congestion reduction; roadway and parking infrastructure cost savings, energy conservation, reduced air and noise pollution and reduced accident risks to other road users (Lawson et al., 2013). These modes of transport can provide both recreation and transportation. For example, some people will choose to walk or bicycle rather than drive because they enjoy the activity (Mat Yazid et al., 2011).

Litman says that option of non-motorized mobility can create different advantages and disadvantages (Table 2) and includes direct benefits for consumers that arises from improving the conditions of walking and cycling, also creates various benefits for society caused by increased activity of walking and cycling, reduce car travel and from the mixing of land uses and high density developing patterns. Since low-income people physically and economically are dependent to walking and cycling, improve this state is helpful for desire to increase social justice (Litman, 2012). Leon Crier believes that man should use his legs for a better aim than walking towards his car, Underground trains and planes and move less with vehicles (Bahrayni et al., 2009).

In Iran there hasn't done any activities to strengthen these kinds of trips, except for the old cities, especially in bazaar and there are not any facts and statics that specify the size, role and status of this system. Unlike our country, most industrial countries have done extensive works in this area in order to reduce the issues of central part and priority access. In the United Kingdom more than 60 percent of trips less than 1/5 km just take place on foot and it is said that in urban areas, about one third of all trips are done on foot (Ahadi, 2011).

4.3. Walking and urban form

Wherein the share of traffic that is carried out on foot be more, structured settlements will be stronger, more diverse and yet free from crisis, so the pedestrian should travel in all the settlements, as sure, with no problem and easy. Intrinsic feature of pedestrian, induced differentiation him from other types of traffic: flexibility and rapid self-regulation, the pedestrian is adapting himself with natural conditions (Kent Lakher, 2003). Statistics indicate that on average, 7 percent of urban trips are done entirely by walking and at least in 20 to 30 percent of trips, part of the route to be walked (Litman, 2003). Healthy foot environment can be successful without a transportation system, but the transportation system cannot exist without pedestrians (Calthorpe, 1993). Walkability is often associated with suitability factors such as street width, the number of lanes, safe speeds, crossing improvements, the presence of trees, and other pedestrian level of service and suitability factors (Dowling et al., 2008). Others cite the perception of

[†] Transport-related physical activity

safety, such as the fear of crime or heavy traffic (Gilderbloom et al., 2015).

Table 2: Advantages and disadvantages of non-motorized transportation

Potential Benefits	Improve user comfort, access improvements especially for pedestrian, up grading the walking, increase local property values, reduce traffic congestion, (Soltani, 2014), high level of the sense of neighborhood and increase the sense of belonging, enhance readability location, high level of awareness, increase environmental safety and security, reduce crime and violence, taking into account the needs of persons with disabilities (TDOT, 2005), enhance environmental quality and reduced forms of pollution, energy conservation, increase biodiversity, conservation, encouraging mixed land uses, health promotion and public health (Kashanijou, 2011), reduction in sudden death, reduce obesity and overweight (Bauman and Bull, 2007), Increase access to public transport, equal access to goods , services and facilities, reduce energy consumption, strengthen environmental education and cultural traditions, preserve the old and historic textures, improve leisure, shaping the structure of settlements, save money roads and parking facilities, saving transport costs (Khaksari and Kheradmand, 2013).
Potential defects	Increasing accident risk, increasing travel time, increasing of development costs (Soltani, 2014), Speed limits, restrictions on movement distance, limitations in mobility for people with disabilities (Khaksari and Kheradmand, 2013).

4.4. Walkability and health

Studies have found that neighborhoods classified as walk able (using walkability benchmarking tools) have higher levels of incidental walking and a lower incidence of obesity (Frank, et al., 2007). One study reported that obesity is responsible for 2.6 million annual deaths worldwide. The American Obesity Association (2007) reports that 65% of American adults are overweight and 30.5% are considered obese; in addition, the rate of obesity is expected to double within the next 10 years (U.S. Center for Disease Control). Being overweight or obese increases the risk of developing high blood pressure, high cholesterol, heart disease, stroke, cancer, gallbladder and respiratory disease, joint and bone disease, and diabetes (Pi-Sunyer, 1993).

Studies suggest that obesity is mitigated by increased activity associated with a more walk able environment. Studies have shown that light-to-moderate activity is associated with a substantially reduced risk of developing disease .Many urban planning scholars agree that the built environment influences physical activity levels (Gilderbloom et al., 2015). Furthermore, environments that are more walkable are correlated with a decreased risk of obesity and related illnesses (Franketal, 2005).

4.5. Walkability, economic value and demand

Growing bodies of work shows that walk able neighborhoods have intrinsic economic value by encouraging economic transactions and social exchanges and bolstering real estate property values in addition to promoting health benefits (Gilderbloom et al., 2015). Research by Matthews and Turnbull (2007) shows that a more grid-like street pattern increases property values in more pedestrian-oriented neighborhoods and decreases property values in automobile-oriented neighborhoods. Other work finds that each incremental increase in walkability, using Walk

score as a metric, can be associated an increase in property values of up to9% (Pivo and Fisher, 2011).

Improved walkability can entice consumers to purchase more local goods and promote greater economic resilience. The attributes associated with walkability may also have the capacity to improve safety and decrease crime (Foster and Giles-Corti, 2008; Leslie et al., 2005; Troy and Grove, 2008), which have an indirect effect on real estate values. There is also literature suggesting that walkability bolsters real estate values. A recent study showed that a spike in consumer demand for walk able neighborhoods spans socio-economic statuses (Handy et al, 2008). This finding is somewhat at odds with the conventional wisdom that upper-income families (especially Caucasians) prefer large, single-family, single-use suburban homes and racial homogeneity (Gilderbloom et al., 2015).

The purpose is not to prohibit the use of car, because not only it is not physically possible, but also there no economical and rational justification and on the other hand, it is in conflict with the common human values such as freedom and individual choice. Instead, the goal is living in a city, does not require people to acquire and frequent use of the vehicle (Soltani, 2011). Therefore, the implementation-oriented of urban projects should be considered in urban plans and adequate funding should be assigned to implement them, because the budget is ensure for the implementation of a strategy.

5. Analysis

According to the considered thoughts, municipalities in the country as the main administrant of urban projects and programs and as well urban management in cities, transport requires the definition of plans and projects related to this topic in order to implement programs related to human-oriented and sustainable transport. Moreover, each project requires adequate funding to be operating. In following papers, the budget

changes during the past six years in the Kerman City have been reviewed.

Table 3: The amount of budget for urban development and transportation plan and reform of urban traffic in Kerman city in 2009-2014 (Currency Riyal)

Title	2009	2010	2011	2012	2013	2014
Total of budget for urban development	4406350000	4511440000	5998810000	7775100000	8666930000	13415200000
Total of transportation plan and reform of urban traffic	2476160000	2168340000	2803380000	2780170000	3668500000	5089900000
Percentage of transportation plan and reform of urban traffic	56.19	48.06	46.74	35.76	42.33	37.94

As it is clear from Table 3, at the beginning of the six-year period a significant share of the total budget for urban development (56.19%) are dedicated to improving transportation programs and urban traffic, but this value has declined during the later years of study, so that in the last year of study it became 37.94% of the total budget for urban development. This descent shows the reduction of planner's attention and descent of transport plan dock and urban transit improvement in the total budget allocated for urban development. However, as it comes out from the numbers this decline is not quite regularly, the process was descending from

2009 the beginning of study period until 2012, But in 2013, it can be seen about 7 percent jump in transport budget share of the total budget, after that there is a decreasing trend in the end of the period.

As well according to the Fig. 3 the amount of funds allocated to the various plans related to urban transport and transit doesn't have a regular process, so that it has decreased in the years 2010 and 2012 than in previous years. And in other years it has an increasing trend; especially it has increased significantly in the last two years, the years 2013 and 2014.

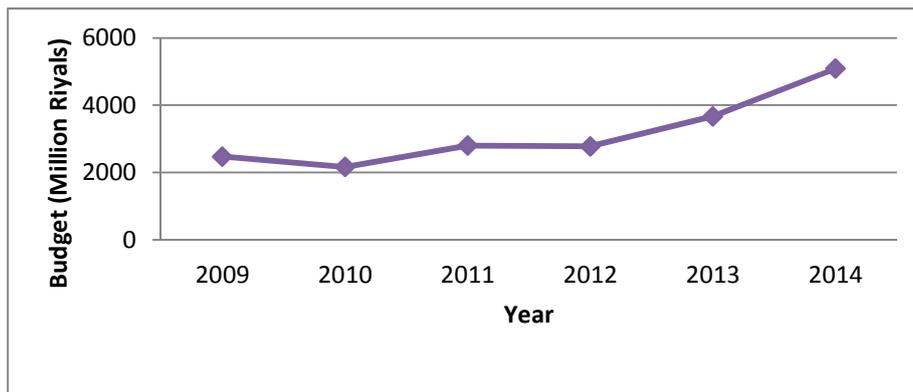


Fig. 2: The budget of transportation program and reform of urban traffic from 2009 to 2014

Also a percentage of urban development costs spent on land and property acquisition needed to create the transport infrastructures. According to financial planning of Kerman city hall, the budget for planning and urban development will be divided between the land and estate acquisition and various study projects. At the beginning of the review period in 2009 the project of property and land acquisition amounted to 199.04 million Riyals, allocated to itself

about 5% of the total budget of urban development. This budget has been increased during the study period, which in 2014 it is amounted to 1600 million Riyals, which became about 12% of the development budget. In this six years property and land acquisition has owned more budget than the study projects and a major share of the budget of urban development planning is cost in this part.

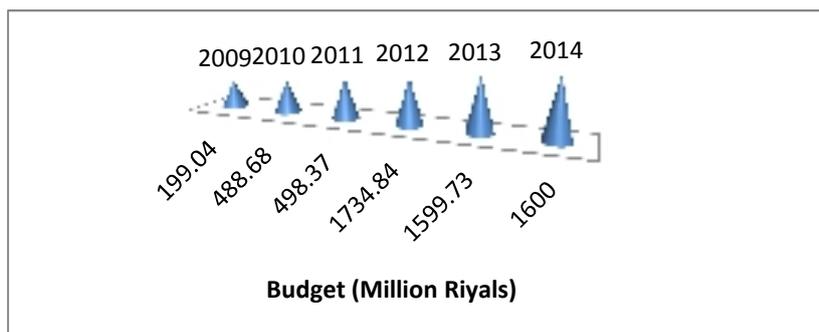


Fig.3: The budget of land and property acquisition from 2009 to 2014

The budget allocated to transportation plan and reform of urban traffic, is distributed in nine projects related to the program .Each of the projects allocate a part of the total budget according to their importance. The titles of these nine plans are as follows:

- The plans of infrastructure curb and asphalt pavements.
- The plan of Implementation of the pavement.
- The plan of construction and completion of the bridge over the river and under pass bridge of urban streets.

- The plan of completion and construction of public parking.
- The improvement plan of traffic in the old texture of city.
- The plan to help the bus.
- The plan of improving traffic.
- Master plan of organizing urban transport.
- The plan of construction of the urban belt.

The Table 4 shows the change in the budget for each of the nine parts in years of the study.

Table 4: The change in the budget of various transportation plans and reform of urban traffic during 2009-2014 (Currency Riyal)

Title	2009	2010	2011	2012	2013	2014
The plans of infrastructure, curb and asphalt pavements	1840890000	1532510000	1157630000	1225930000	1438100000	1736000000
Percentage of transportation plan	%74	%71	%41	%44	%39	%34
The plan of Implementation of the pavement	70120000	82680000	73380000	136700000	101620000	200000000
Percentage of transportation plan	%3	%4	%3	%5	%3	%4
The plan of construction and completion of the bridge over the river and under pass bridge of urban streets	93490000	146670000	987520000	761460000	1610110000	1500000000
Percentage of transportation plan	%4	%7	%35	%27	%44	%29
The plan of completion and construction of public parking	8440000	61020000	145180000	93830000	0	500000000
Percentage of transportation plan	%0	%3	%5	%3	%0	%10
The improvement plan of traffic in the old texture of city	7230000	10640000	13210000	33220000	26450000	117500000
Percentage of transportation plan	%0	%0	%0	%1	%1	%2
The plan to help the bus	211320000	153790000	203570000	322880000	371320000	350000000
Percentage of transportation plan	%9	%7	%7	%12	%10	%7
The plan of improving traffic	92880000	111590000	128020000	100040000	12090	186400000
Percentage of transportation plan	%4	%5	%5	%4	%3	%4
Master plan of organizing urban transport	27440000	54460000	94870000	106110000	0	500000000
Percentage of transportation plan	%1	%3	%3	%4	%0	%10
The plan of construction of the urban belt	124350000	14980000	0	0	0	0
Percentage of transportation plan	%5	%1	%0	%0	%0	%0
Total of transportation plan and reform of urban traffic	2476160000	2168340000	2803380000	2780170000	3668500000	5089900000

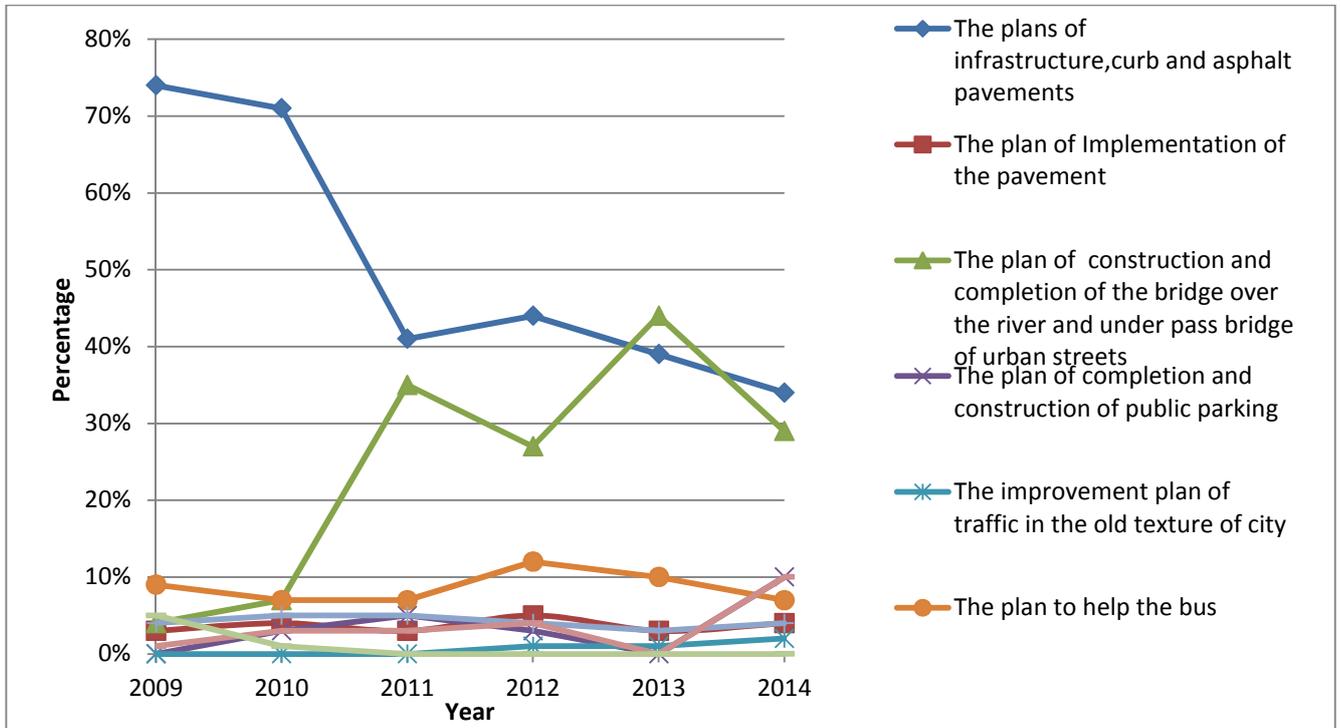


Fig. 4: The percentage the budget of various transportation plans and reform of urban traffic during 2009-2014

As it is clear in each of the years of study, the plans of infrastructure curb and asphalt pavements allocated to themselves greatest share of the total budget.

The lowest level of appropriations is different in the years of the investigation, in 2009, the beginning of the review period, the plan of completion and construction of public parking and the improvement plan of traffic in the old texture of town allocated a very little amount of funds nearly zero percent to themselves. In 2010 this share allocated to the improvement plan of traffic in the old texture of city. In 2011, again improvement plan of traffic in the old texture of city and in addition to that The plan of construction of the urban belt had a very small amount of budget, in 2012 the plan of construction of the urban belt, in 2013 completion and the plan of construction of public parking, master plan of organizing urban transport and the plan of construction of the urban belt and finally at the end of the review period, in 2014 the plan of construction of the urban belt have the lowest amount of budget.

The plans of Infrastructure, curb and asphalt pavements at the beginning of the review period in 2009 allocate to itself the maximum amount of funding, and over the next years it has a decreasing trend, especially in 2011 it has decreased considerably compared to the previous year. Totally the plans of infrastructure curb and asphalt pavements have passed decreasing trend during the study years.

During the six-year period the plan of implementation of the pavement has very limited changes and almost in all of these six years the same rate and very little funding has been allocated to it. However, generally it had an increasing trend and the amount of budget has increased from 70120000

Riyals in the first year of the review to 200000000 Riyals in the end year.

The plan of construction and completion of the bridge over the river and underpass bridge of urban totally has an ascending and descending process. Such that from 2009 to 2011, it has increased and has dramatically increased from 93490000 Riyals to 987520000 Riyals. After that in 2012 the amount of budget has decreased 226.06 million Riyals. In the following year we can see a big jump in budget, 848.65 million Riyals and at the end of the year its lightly decreases compared to previous year and the rate reaches to 1500 million Riyals.

The budget of the plan of completion and construction of public parking has an increasing and decreasing process, In 2009 the beginning of the study period, allocated to it a tiny proportion of budget, In two next years, can be observed approximately 14-fold increase in the budget. In two next years, the direction of process has changed and sailed to reduce until in 2013 it became approximately zero, but in the last year of review in 2014 has been found a 10 percent increase.

The budget of the improvement plan of traffic in the old texture of city totally has an increasing process except in 2013 that it had a slight decrease compared to the previous year. But in general, this plan allocated to itself a small percentage among the nine plans of urban traffic. Despite the wide range of Kerman is formed by old and worn texture and consequently the traffic in these areas should be arranged and therefore it requires additional funding. Very small amount of funding allocated to it, shows lack of attention to the old and worn texture of city and organizing and improving it, however, the old textures of Kerman were formed on the

principles of sustainable architecture and urbanism as a result, traffic in these places is human-oriented.

The budget of the plan to help the bus had decreased just at the beginning and the end of the study period and in other years the trend has been increasing. But generally at the end of the study period, this share have fallen in terms of percentage share of the total budget funds of urban transport and transit compared to the first year.

The budget of the plan to improve traffic has increased over the six-year period and from 92880000 Riyals at the beginning of the review period achieved to 186400000Riyals at the end of the period. However, its contribution of total funding share is small.

The budget of the plan of construction of the urban belt is zero in all these years except for first and second year of study.

The Fig. 5 shows the total sum of each the nine projects over a six-year study. As it is clear during the six-year period and totally, the plans of Infrastructure, curb and asphalt pavements, with 47 percent of the total 100% has the largest share, After that there is The plan of construction and completion of the bridge over the river and underpass bridge of urban streets ,Then with a large difference there is the plan of help to bus And then there are master plan of organizing urban transport, traffic improvements, Construction and completion of the public parking and Implementation of the pavement with low percent, 4percent.And at the end there are the plan of construction of the urban belt and the improvement plan of traffic in the old texture of city.

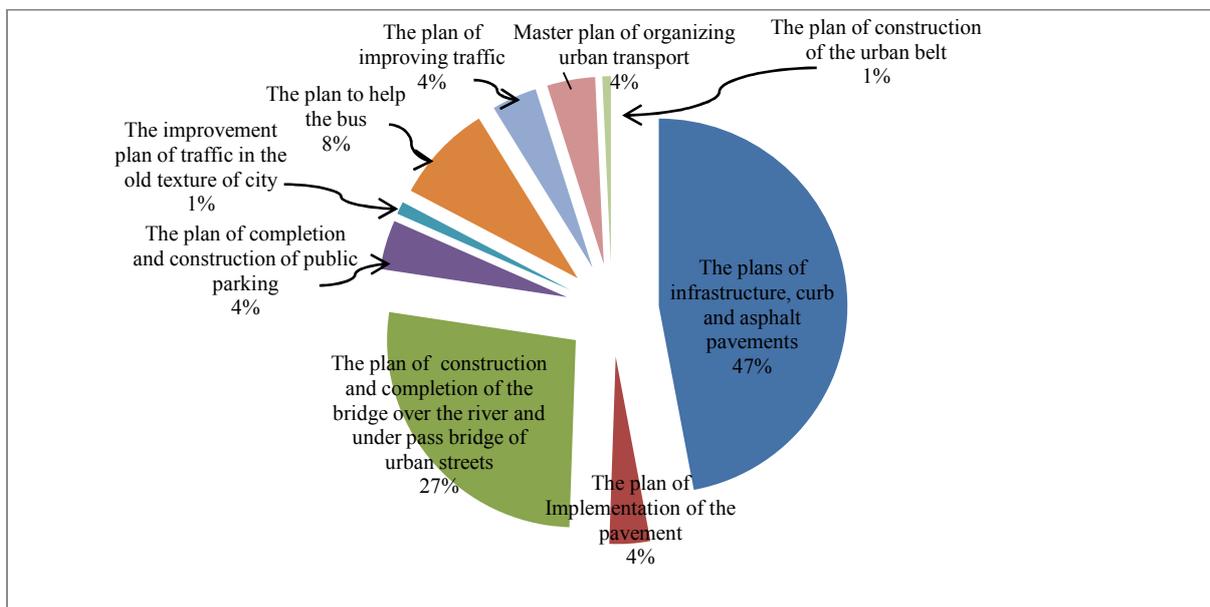


Fig. 5: The percentage of total sum of each the nine projects (2009-2014)

Among all of under taken plans there is just the plan of implementation pavement that takes steps toward non-motorized transportation. During the six-year period, the plan of implementation pavement had very limited changes and almost in all of the study years has been allocated to it on the same level and very little funding. But none the less the general trend has been increased and from the budget 70120000 Riyals in the first year of study

achieved to 200000000 Riyals in the final year of period. Since this mode of transport is very cheap, it needs much less financial resources than other transport projects to create the infrastructures. While if even will be reduced one percent of other programs, can be created Non-motorized transport infrastructure in many fields.

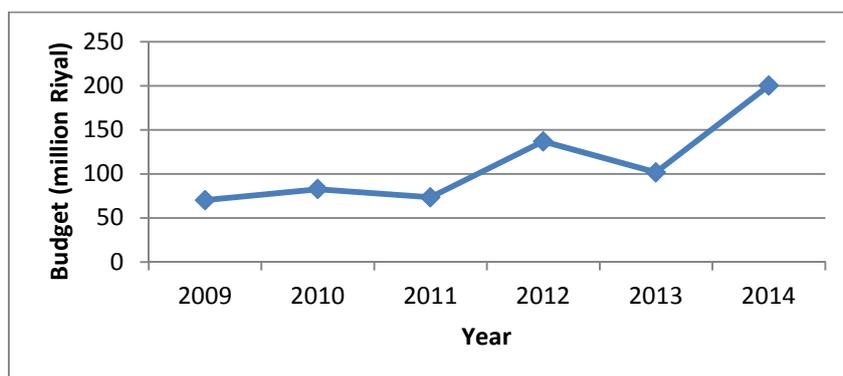


Fig. 6: The budget of Implementation of the pavement plan (2009-2014)

6. Conclusion

Nowadays, transportation systems, is entirely for the benefit of drivers and thus is beneficial to vehicle traffic from predict stage to conclusions stage. In this terms, there's more expectation to create better conditions for drivers and next construction to this expectation is fulfilled again similar to the following will be expected to make more trips made by car. Frequent movements by car, not only don't strengthen human values but also it is the reason of increasing the cost of living, exacerbating the gap in society, destruction of resources and increasing pollution. In this case, managers and planners in the design and planning of city hall projects can provide the base of non-motorized models in network traffic by lead the city hall projects with low costs and make such problems less in cities. Bicycle transportation and pedestrian system is including these systems. This system has many advantages such as improving health, reducing household spending; reducing the cost of transportation, construction of infrastructure, reducing air pollution and dependence on non-renewable resources that will be usable for a wide range of social classes and it has significant economic benefits for the city as well. But unfortunately, nowadays the share of the budget allocated to programs and development projects tend to use cars, represents the dominant model based car-oriented planning in transport planning. Another important point is that the extremely low budget allocated to improve traffic in the old texture of city, despite the wide range of Kerman city consists of old texture that it has very bad transportation condition, Since the old texture of Kerman is formed on the principles of sustainable living, including pedestrians so it is better that the responsible take a better look to this section in order to take a major step forward to human- oriented transport. If only allocated apart of the overall funding for roads, Highways and city streets to the development of public transport and non-motorized transportation options, the impact would be very high. Generally, we should change the heading city hall planning and implementation-oriented and biking receive more shares from the budget. City hall projects must be in the form of urban development plans, programs and strategies that walking-oriented system and biking and ultimately human- oriented transportation become top of view.

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