Pakistan’s Urban Transport and Commute Problems (an Empirical Investigation)

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Abstract. Like all evolving economies, Pakistan’s urban transport and commute problem is one of the tenacious subjects of the time which needs to be judged and evaluated. With mounting congestions on roadscaping from an upturn in number of privately owned vehicles, urban commuting problem is aggravated so abruptly in all the major cities of Pakistan. The resolution of this research was to study the transport infrastructure in Pakistan and the conditions of traffic and commute in the country while focusing its major cities. Respondents’ perceptions/ responses on the proposition of this study were recorded for reaching the empirical findings on urban transports and commute problems and their effects. 1000 respondents were selected from all major cities those were affected during the rush hours. The findings confirmed that the traffic and commute conditions are very critical problems in all major cities of Pakistan. The present conditions of traffic and commute pave the way for effecting employee productivities, while traffic congestion promotes psychological problems in public in general. The findings recorded that, in country the circular railway network development reduces the dependency of general people on buses and other means of commute further, this circular railway system eliminates traffic congestion in all major cities of Pakistan. Findings proposed that the better commuting infrastructure (low types roads, high types roads, under passes, bridges, and fly overs) can save the time of public while eliminating the traffic jams in all the major cities. This research recommends that the eliminations of encroachments may also pave the way for reducing traffic and commuting congestions. It was proposed empirically by this study that a good welcome for traffic rules by public may help to manage commuting on the roads as the whole.

1. Introduction
The transportation plays an important role in development of all the services sectors and directly link with the economic growth of country by cut down the cost of transportation. A dependent transportation also contributes in an easiest way to access labor force at workplace and provides to generate opportunity for employment. The road system needs to be improved by means of using latest technology like high speedy railway among All major cities of Pakistan and other big cities as well, as a part of long term transportation planning for further economic growth of our country \cite{1}.

The life style of many poor people is directly dependent to reach at workplace mainly located to the centre of city to earn money for contribution of livelihood. The private sector has shown their importance in providing transport services despite of fact that they provide facilities for limited hours
in a day and not round a clock. It is fact that bus drivers follow their own time schedule and waiting for long time to overload the bus and definitely poor people face much difficulty to reach on time at workplace [2].

2. Literature Review
Traffic jam and road maps have been a tremendous issue for the city All major cities of Pakistan since the last decade as it has created a lot of hassle for certain group of people impacting the overall economy of the city which also creates and force the country towards the progress and prosperity which can easily be done by assertive planning and decision making of the concerned and related authorities. Traffic jam has been an issue in various ways as it can be life threatening along with can also be harmful for humans in the sense that by continuously immovable for quite a while can also create a disposition in their mind that can ruin the whole day, this is at the micro level and if we take an average of at least 10% of the individuals suffering or facing this concern we indeed end up resulting a huge impacts in our daily life.

The position of transportation in addressing the poverty scale in discussed at a medium level in which various study seeks to recognize in a suitable method to make enhanced the use of the transport methods that could make the lives better of the people residing in all major cities of Pakistan. There are various studies conducted to come to a conclusion where they can find an alternate to abide the traffic issues and confront the hesitation of the society [3].

Defines the problems of every city or country over the transportation is the past decision made on the planning and development sector and same is the case of All major cities of Pakistan where at the time when army was deployed and the decision that were being taken back in the time of 1960’s in which they executed a plan where the white collars will be segregated from the blue collars and resulted in differentiating them from the city and as they started becoming civilized moved drastically and at the time when they started building the careers they started moving up in the city and their jobs remain near the city centre which engraved them to drag themselves from urban areas. Later when people starting adopting several ways accomplish in life and became versatile but the plans were not up to that mark instead of the same old trend that was being followed through from the same old time. This led a lot of obstacles as there were not efficient plans being made for the betterment of the city after the military period that caused a horrendous downfall in the civilization and people started comparing themselves with the upper class.

The main problem of the traffic jam in All major cities of Pakistan is that people have become status conscious and based on their status we always prefer our ease & comfort in front of the overall convenience to the society [4]. As we know that right now at this point there are countless vehicles waiting to be cleared at our All major cities of Pakistan port which after their clearing will come on these same roads where one can’t take a comfortable stop because of the load of traffic and population, besides those vehicles there are various companies assembling cars in the country which also results in traffic jams as there are no proper planning being made forecasting the future. Everyone wants to be at their desired destination with ease & comfort and to save their time mostly the affording class does not prefer travelling in the public transport because of their image and status [5]. In All major cities of Pakistan the public transport includes: Buses, Taxi’s rails etc. but still the affordable class prefer their private convenient transport due to the fact that they can reach their destination on time according to the locality in the city and the alternate routes towards the destination. As other parts of the world where public transport is being given amount of importance to cover the traffic issues that creates an impact over the economy of the country.

[1] claims that due to the traffic conditions it has created a question for the air transportation as the national highway which is running parallel to the air road and the pollution that is perverted can be responsible for a major impact for it as there are no precautionary measure being taken to sort this out and this could also GOD forbid a reason for certain losses.

All major cities of Pakistan itself being a city of approx. 20 Million populations and the area covered in not up to that smear what it is believed to be as there is an assortment of development
programs under progress but due to different discrepancies like interrupting of various departments towards the progress is the biggest impact over the society. All major roads and highways in the city witnessed the worst ever traffic jams in the history of the city and they all are becoming a daily routine for an individual in his or her daily life and the main causes are that roads leading towards the ministry offices are blocked by the containers placed over the roads which create numerous hassles for the commuters and to reach the minutes destination. Then comes the most important factor which is the breakdown of roads and the unbalanced components been used in the material at the time of making the roads in the sense that no proper planning was conducted and if planning is done that is also not at the stage that what can happen in 5 years from now, which also results in a obstacle and create a hurdle for the commuters.

[6] states that the study they conducted over the all major cities of Pakistan traffic and the noise exposure that has been extracted out of it has been a major issue or be a part of frustration / displeasure and which can be harmful for the health of the inhabitant’s commuters according to the report of world health organization. Abbas (1997) claims that in Pakistan the methodology for rural areas transportation system and the undue regulation is also being at a suffering stage pointing responsible factors such as illiteracy in certain areas or the feudal law system and to be at the position that they hold whom they doesn’t want to grow or become civilized as this practice is being followed from the past centuries.

The issue posted claims the different ways that disrupts the regular traffic and creates traffic congestion, the main causes are the unbalanced roads and out illiterate lower class unemployed labor who doesn’t care of what can happen or what could be the result if they break the traffic rules or don’t have the patience to let the traffic in the normal customs as it is curving all the way through, it is not most of the times the duty of the constables in the absence of the traffic lights to control the traffic without the influence of the commuters who need to cooperate to get things going in the normal manner. Then we can see the during the showery season we see that our roads keeps a large amount of water which needs to be draining but due to improper infrastructure the water doesn’t find its way out which results in the obstacle of the flow of the traffic and the road that has 5 tracks to move but due to water drowned roads the vehicles also doesn’t find a proper route to move which creates a traffic congestion too and most times the old and un maintained vehicles broke down which results in the suffer of the rest in queue because mostly residents of All major cities of Pakistan lives in squatter settlements who don’t have those facilities to survive and thus can’t afford to have their own vehicles and hence are forced to travel by the public transport. The next cause be the long distance routes are the bottlenecks with multiple roads coming and meeting up a point where the further way is not as it is supposed to be with observing the view that this could affect the locals too, next phase comes when peak hours traffic crushes the roads and the whole area is covered with vehicles whereas several issues are also reported under different observatories which they face while peak hours and most often reach late to work due to extensive road traffic and loads of pedestrians alongside.

The government investment can be a major role in the development in this sector as the spending is not up to that level that we can create or build fine quality roads and can prevent road injuries and towards the betterment of the road safety which could also be a factor to accomplish and save lives of the commuters as they are already paying taxes which if possible can be utilized in a better way can be a source of revenue simultaneously [7]. [8]also describes the identical and shares his opinion that various investments that are already being made if utilized as per the desired manner this concern can be reduced at an enormous level.

[9] in his article published in UK states this problem as the city becomes more civilized people started coming in and that makes several areas congested which cause traffic jams and people in search for their parking routes disturbs the whole traffic and that cause a disturbing circumstances for infinite number of peoples as their routes may be same but due to the issue they may take alternate routes which disturbs that traffic and that agitate the whole structure of the traffic.

3. Methods to improvise the system of Road Trafficking:
[10] states that in regards to what has ensued in the past diverse measure needs to be taken to accomplish the mission and be a prosperous nation in the future and for that certain actions has to be implemented and applied to the overall economy and for the traffic sector the steps needs to be occupied could result in better growth of the nation and progress of the society.

If we see there are many cities in the world that are more in magnitude as compared to All major cities of Pakistan but still there are different transportation methodologies being used and are operating successfully, if the these identical steps can be adopted here this city can grow better and can regain the original growth and aim what it is supposed to and can prove it to be the Hub of Pakistan [11].

Khan and Amanullah says hat: employ delve into work of the higher edification and auto production is an encouraging sign for civilizing socio-economic principles which may give way to matter-of-fact research in other section of the social order [6]. And to implement these strategies they have organized a seminar at the university where all the civil military departments with the concerned authorities were invited and were provided with the brief idea of their thoughts and the strategies that needs to be implemented to overcome this major issue of this declining economy.

Route congestion is the pest of current fleet management. It grounds impulsiveness in voyage period and grades in more vehicles necessitating to be worn to convene target and wait surrounded by driver hour requests [12]. But congestion is likely to get much shoddier in the future, even though there is the outlook of some enhancement from the process in the Government’s 10 Year Plan for transportation. Transport machinist and logistics executive need to allow the distorted expedition period when preparing for future schedule. Commissions are commissioning certain researches to envisage potential trip times on the motorway and trunk thoroughfare scheme [13,14]. These new estimates will take explanation of foresee traffic enlargement and assure road capability improvements & developments and will allow superior well-versed conclusions concerning future road circumstances. The impact of traffic congestion on journey times over the coming decades will be thoughtful without a theatrical step up in road aptitude on key transmission.

4. Research Methodology
The research methods basically expose the methods & procedures that were undergone in order to accumulate relevant information required to acquire the results. The intention of the research was to find out traffic transportation situations in Pakistan pertaining to the problems and their solutions.

Method of Data Collection
A survey method was opted during this research for the purpose of data collection while accessing responses from respondents for the study. Data was collected through a closed ended questionnaires from all major cities of Pakistan including Islamabad, Lahore, Peshawar and Quetta. The questionnaire was purely designed to identify the responses of all affected respondents from the outlined cities.

Sampling Technique & Sample Size
A non-restricted non probability sampling was deployed in this study for collecting the set of information from the respondents pertaining to problems and their solutions of traffic and transportations in the country. The sample size was selected on the basis of boundaries and range of the research. Total 1000 respondents were asked to fill the closed ended questionnaire. Hence the sample size of the study was 1000.

Profile of respondents
The survey noticeably contained the questions which were grabbing the perceptions of the respondents toward rush hour in the country. While the questionnaire were purely designed to identify the responses of all affected respondents including General public (i.e. old and young male and female) traffic officials maintain law and order on roads, from the outlined cities during the rush hours.

Research Model & Statistical Test Deployed
The mean value of responses from the respondents was compared with the test value of the responses. Where test value reflects the threshold level of agreements from respondents in empirical terms (i.e.4) on all raised questions / statements. It was formulated that any mean value of all
respondent’s responses for each statements if recoded more than the test value then each such statements will be considered as the significant statements for addressing the proposition of the study. Further for such comparison between the mean values and test value, the one sample T-test was deployed to evaluate all propositions of this study.

5. Findings and Interpretation Results

As mentioned, it was formulated that any mean value of all respondent’s responses for each statements (hypotheses) if recoded more than the test value then each such statements/hypotheses will be considered as the significant statements/hypotheses for addressing the proposition of the study. The findings of one sample T-Test confirmed that for all statements/hypotheses except of statement/hypothesis 6, have mean values more than to their test value/threshold values for the acceptance of statements [15]. Thus, we were failed to reject all statements/hypotheses on the basis of responses recorded from sampled respondents for each items except of statements/hypothesis 6 as reported in table 1 and mentioned in table 2.

| Table 1 Findings of One Sample T-Test |
|--------------------------------------|
| **Test Value = 4**                   |
| **95% Confidence Interval of the Difference** |
| **Mean** | **T** | **(2-tailed)** | **Mean Difference** | **Lower** | **Upper** |
| H1: Traffic and commute conditions are very critical in all major cities of Pakistan | 4.5720 | 15.110 | .000 | .57200 | .4974 | .6466 |
| H2: Traffic congestion impacts on overall productivity of peoples in all major cities of Pakistan | 4.2720 | 6.485 | .000 | .27200 | .1894 | .3546 |
| H3: Traffic congestion creates more psychological problems in peoples driving in all major cities of Pakistan | 4.3360 | 7.475 | .000 | .33600 | .2475 | .4245 |
| H4: Numbers of new vehicles increase the complexity of traffic and commute in all major cities of Pakistan | 4.2400 | 4.349 | .000 | .24000 | .1313 | .3487 |
| H5: Circular railway network development reduces the dependency of people on buses and other road transport modes | 3.9440 | -9.27 | .355 | -0.05600 | -0.1750 | .0630 |
| H6: Circular railway network development caters the increased requirements of commuting easiness in urban populated cities in upcoming decades | 3.7680 | -3.934 | .000 | -0.23200 | -0.3482 | -0.1158 |
| H7: Time saving via scheduled circular railway system eliminates traffic congestion | 4.1320 | 2.598 | .010 | .13200 | .0319 | .2321 |
| H8: Better commuting infrastructure development in all major cities of Pakistan may save the time of the people | 4.5720 | 11.103 | .000 | .57200 | .4705 | .6735 |
| H9: Improved commuting infrastructure development in all major cities of Pakistan may eliminates the traffic jam situations | 4.3920 | 8.399 | .000 | .39200 | .3001 | .4839 |
| H10: Elimination of encroachment may be a good measure for eliminating traffic congestion in all major cities of Pakistan | 4.0960 | 2.087 | .038 | .09600 | .0054 | .1866 |
| H11: Traffic rules implementation in all major cities of Pakistan may results in the better commuting management on the roads. | 4.5080 | 10.544 | .000 | .50800 | .4131 | .6029 |
Table 2 Hypotheses Assessment Summary

| Statements/ Hypotheses                                                                 | Mean Value VS Test Value | Empirical Conclusion |
|--------------------------------------------------------------------------------------|--------------------------|----------------------|
| H1: Traffic and commute conditions are very critical in all major cities of Pakistan  | 4.57 > 4                 | Failed to Reject     |
| H2: Traffic congestion impacts on overall productivity of peoples in all major cities of Pakistan | 4.27 > 4                 | Failed to Reject     |
| H3: Traffic congestion creates more psychological problems in peoples driving in all major cities of Pakistan | 4.33 > 4                 | Failed to Reject     |
| H4: Numbers of new vehicles increase the complexity of traffic and commute in all major cities of Pakistan | 4.24 > 4                 | Failed to Reject     |
| H5: Circular railway network development reduces the dependency of people on buses and other road transport modes | 3.94 > 4                 | Failed to Reject     |
| H6: Circular railway network development caters the increased requirements of commuting easiness in urban populated cities in upcoming decades | 3.76 < 4                 | Failed to Accept     |
| H7: Time saving via scheduled circular railway system eliminates traffic congestion | 4.13 > 4                 | Failed to Reject     |
| H8: Better commuting infrastructure development in all major cities of Pakistan may save the time of the people | 4.57 > 4                 | Failed to Reject     |
| H9: Improved commuting infrastructure development in all major cities of Pakistan may eliminates the traffic jam situations | 4.39 > 4                 | Failed to Reject     |
| H10: Elimination of encroachment may be a good measure for eliminating traffic congestion in all major cities of Pakistan | 4.09 > 4                 | Failed to Reject     |
| H11: Traffic rules implementation in all major cities of Pakistan may results in the better commuting management on the roads. | 4.50 > 4                 | Failed to Reject     |

6. Discussions & Conclusion

The main proposition of this study was to investigate the conditions of traffic and commute in the country while focusing the major cities of Pakistan [16,17]. This research confirmed that traffic and commute conditions are very critical problems in all major cities of Pakistan. The present conditions of traffic and commute pave the way for affecting employee productivities, while traffic congestion promotes psychological problems to public in general. This study recorded that circular railway network development reduces the dependency of general people on buses and other means of commute further, this circular railway system eliminates traffic congestion in all major cities of Pakistan. This study proposed that the better commuting infrastructure (low types roads, high type’s roads, under passes, bridges, and fly over) can save the time of public while eliminating the traffic jams in all the major cities of the country. This research also confirmed that eliminations of encroachments may pave the way for reducing traffic and commuting congestions in the cities. It was proposed empirically by this study that a good welcome for traffic rules by public may help to manage commuting on the roads.

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