

ROAD CONCESSION AND PRICING: PANACEA FOR URBAN ROAD SUSTAINABLE DEVELOPMENT IN OSUN STATE, NIGERIA.

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Abstract

Since Nigeria gained independence, the country has maintained very high economic growth rates and promoted development programs that have resulted in rapid urbanization. However, one of the major problems often brought about by such development and affluence is a rapid growth in the number of motor vehicles over the available road infrastructure. Almost all major roads in Osogbo are tarred but many of them have potholes and in a state of complete disrepair. Many of the roads in the City have little or no effective drainage; very few have culverts or side ditches. During the rainy season many roads become impassable, as storm water results in flooding that erodes the road ways. Apart from this, most roads in the study area have few or no road signs to alert the motorist of the road conditions. Another important point to note is that aside from the uncomfortable travel, poor urban roads cause bottlenecks in traffic and contribute to traffic congestion in the study area. The congestion results not only in time lost, it also constitutes a disruption to supply chain and the general movement of people, goods and services in Osogbo. This paper observes that sustainable road development is achieved in developed countries through road concession and pricing that enable government to generate revenues not only for construction but also for maintenance of road networks. This paper therefore, assess road transportation system in Osogbo by examining factors that contribute to road disrepair, evaluate road conditions, determine volume of traffics, and appraise road concession and pricing in the area. Primary data was used for this study. The data was derived from field work, which involved direct interview and administration of questionnaire to the motorists using purposeful sampling technique. Descriptive statistics such as tabulations and percentages were used in the presentation and analysis of the data. The study reveals that most of the roads in the study area were in the state of disrepair while some were even in a deplorable condition. Motorists in the area express wiliness to pay for road infrastructure in the area, which could serve as panacea for urban road sustainable development. The paper therefore suggested enabling policy environment for private investors to operate in the state in the provision, rehabilitation, and maintenance of road infrastructure in form of road concession and pricing as obtained in the developed worlds.

Keywords: Road, Concession, Pricing, Sustainable, Development and Urban

Background to the Study

Transportation is generally concerned with the movement of persons, goods, services and information from one point to another. It is the only means of exchange of all factors of production from place to place and the means of achieving economic and political development (Adedotun 1992; 1). According to Federal Government of Nigeria [FGN], 2010 a well functioned and integrated transport system amongst other things; stimulates national development and enhances the quality of life for all; allows markets to operate by enabling the seamless movement of goods and people; provides vital links between spatially separated facilities and enables social contact and interaction; promotes economic development by increasing access to labour and physical resources thus facilitating the realization of a country's comparative advantages.

The Nigeria transport system functions in a crisis situation and of the principal causes identified by the 1993 National Transport Policy document was “a major imbalance between the needs of Nigeria society and economy for adequate transport facilities and the ability of the transport sector to meet such demands”. This is a statement of facts even today in respect of most transport system. As at today overall demand transport service in Nigeria seems to exceed the supply. The Nigeria transport system is still in a very difficult situation that needs urgent remedies.

Nigeria has become increasingly dependent on the road system to meet virtually all its inland transport needs as the rail, pipeline and inland water way systems have deteriorated over the past decades (Daramola, 2010). Roads account for about 90% of the internal movement of goods and people in Nigeria (FGN, 2010). At the same time, the road network itself had suffered from continuing lack of maintenance and investment by the three tiers of government, Federal, State, and Local [FGN, 2010; 24]. As provided in the Nigeria constitution each tiers of government have independent responsibilities for the planning, financing and maintenance of their roads. As noted in the Drafts National Transport Policy of 2010, three major issues affect the road network:

- (i) misuse particularly as a result of axle overloading causing damage to roads
- (ii) neglect of periodic and routine maintenance and an absence of emergency maintenance and
- (iii) inadequate design and construction.

Nigeria is urbanizing at a very rapid rate. The total urban population in Nigeria in 1991 was 32.2million. This rate rose to about 45million in year 2000. On the average Nigerian cities have been growing at the rate of 8% per annum, far in excess of the country's population growth of 3.2%. Nigeria today has 11 cities with population above one million and there are 23 cities with population of over 200,000. The urban transport problem today manifest in the form of poorly maintained urban road network and road complementary facilities; inefficient public transport system; poor institutional framework leading to poor coordination of urban transit services; poor land use-transport planning; poor and ineffective transport management [FGN, 2010, 34, 35]. This paper therefore, assess road transportation system in Osogbo by examining factors that contribute to road disrepair, evaluate road conditions, determine volume of traffics, and appraise possibility of road concession and pricing in the area.

Statement of Problem

Since Nigeria gains independence, the country has maintained very high economic growth rates and promoted development programmes that have resulted in rapid urbanization. However, one of the major problems often brought about by such development and affluence is a rapid growth in the numbers of motor vehicles, over the available road infrastructure. The rate of urbanization has brought about increase demand for public transport not only in the provision of service but also in the provision of facilities. The increase in population and economic development will place a service and constraint on the government enough to force them look seriously into the issue of public transport. Nigeria's road networks are poorly maintained and over used as alternative modes of transport are poorly developed. Federal government of Nigeria is very conscious of this, which gives reason for the establishment of Federal Roads Maintenance Agency [FERMA] in November 2002 to monitor and maintain the Federal roads network.

According to Alison-madueke (2008), roads are probably the most valuable public asset of Nigeria economy, which are not only big business, but extremely essential for economic development. She attributed the current states of roads to lack of appropriate institutional and legal frameworks, unpredictable and inadequate funding and a dire lack of maintenance culture. Chris Joslin (2011), has observed that many roads in Nigeria have little or no effective drainage; very few have culverts or side ditches. During the rainy season (April and October) many roads become impassable, as storm, water results in flooding that erodes the roadways. Without funds to maintain roads, many are in constant state of disrepair. Apart from this most roads typically have few or no speed limit signs or warning signs to alert the motorist of curves, hills, intersections or problems with roads itself, such as large potholes or eroded road beds.

Almost all urban roads in Nigeria are tarred but many of them are with potholes or large sections where pavement has been eroded. As noted in most cities in Nigeria and Osogbo in particular are the ability of informal road repair crews. In return of their unsolicited service, road users often tip these unofficial public workers. Another important point to note is that aside from uncomfortable travel, poor urban roads cause bottle necks in traffic and contribute to traffic congestion. Traffic congestion continues to be serious problem in major cities around the world and even Osogbo. Congestion results not only in time lost, it also constitutes a disruption to supply chain and the general movement of people, goods and services in Osogbo. Congestion thus reduces the quality of life, but government efforts to limit it have been, for the most part, woefully inadequate. Christiansen (2006) maintained that chronic traffic congestion is an indicator that there is an excess demand for roadway use without explicit price charged for driving on streets and highways. Brian (1992) described urban transportation problems as a result of supply and demand disequilibrium at peak times, resulting from the concentration of travel in the morning and evening rush hours. As noted by Brian (1992) at the given prices, rising demand in the face of relatively inelastic capacity always produces congestion for goods and services and in this respect urban transport is no exception.

Objective of the Study

With every emerging transportation problem, man is faced with the responsibility of getting a solution. Unfortunately, with the technical ability to solve such problems well in place, the modern cities are confronted by a transportation problem more complex than ever before and despite all the method of movement, the problem in cities is how to move, hence the need for road concession and pricing in urban road sustainable development.

Literature Review

Tolls for roads, bridges, and highways have a long history around the world, not all the tolls collected have been used mostly to help pay for transportation infrastructure (Christainsen, 2006). Singapore has since 1975 priced vehicle entry into its, Central Business District (CBD) with the aim of managing traffic volumes rather than the revenue collection. The city of London introduced congestion pricing in part of its downtown area in 2003, which has succeeded in reducing traffic volumes by about 15%, and average traffic speeds have increased about 9.2% (The Economist, 9 June 2005).

The urban transport problem is usually perceived as disequilibrium, at peak times between the supply of transport infrastructure and the demand for the use of this infrastructure by an increasing population for more journeys (Field, 1992). Given the consequent problems of congestion and the environmental constraints acting against any substantial increase in road capacity, the ultimate necessity to restrain the use of private car is obvious. Elementary economics teaches that an excess demand for a good or services can be eliminated if its price is raised sufficiently high. The demand for roadway use is no exception. Chronic traffic congestion indicates that there is an excess demand for roadways use, but in most cases, there is no explicit price charged for driving on streets and highways (Christainsen, 2006). He further maintained that road pricing offers the possibility of targeting specific thorough fares at specific times for more intensive traffic control. In addition, he claimed that as far as road construction decisions are concerned, the use of charges provides information as to whether additional roadway capacity is desirable or whether in fact roadway construction in a particular area has already gone too far. Private investors and concessionaries have helped Greece to build significantly an improved motorway infrastructure (Rational Transport, 17 March, 2011).

Road pricing is any system that directly charges motorists for the use of a road or network of roads. Traditionally it has meant tolls a single route, particularly crossing such bridges or tunnels. More recently, it also includes area, cordon, and zone pricing of urban areas, and distance and time based charging of whole networks (Wikipedia, internet, 17 March, 2011).

The South African National Roads Agency Limited (SANRAL) is recognized by the world-bank as being probably the best national highways agency in the developing world, certainly the best in Africa. The agency runs as a company, contracts out as much as it can to maximize value, treats motorists as its customers and has extensively involved the private sector in its core business. It has also had relatively free reign to use tolls when insufficient funds were available for major projects.

Singapore was the first city in the world to implement an electronic road toll collection system for purpose of congestion pricing (Cervero, 1998). According to the Land Transport Authority (LTA), road traffic decrease by nearly 25,000 vehicles during peak hours, with average road speeds increasing by about 20%. It has been observed in Singapore that car pricing has increased, while the hours of peak vehicular traffic has also gradually eased and spread into off – peak hours, suggesting a more productive use of road space. However, it was equally observed by the road users that the system has its share of problems. It was pointed out that the implementation of an Electronic Road Pricing (ERP) gantry along any road simply moves traffic somewhere else, potentially causing traffic bottlenecks along smaller roads.

Despite the local public controversy, the ERP attracted the attention of transport planners and managers in other metropolitan areas of the world. For example, the London congestion charge was introduced on 17th February, 2003 (The Guardian News and Media, 2006). The Stockholm congestion tax which is also a congestion pricing system implemented as a tax, which is levied on most vehicles entering and exiting central Stockholm, Sweden (Swedish Road Administration, 2007) was introduced. In 2007, Dubai, at the United Arab Emirates, also implemented a corridor congestion pricing scheme called 'salik'.

According to Manuel Eduardo Lamego (Wikipedia, 2011) on Portuguese model of road concessions observed that the growing needs for investment in infrastructures, namely roads, will require huge amounts that are no longer available from national budgets. He noted that private sector is, then, a key player in the development of infrastructures. He said this has to be done with an adequate share of risks and the corresponding returns between this private and public sectors. The public private partnership is the most suitable approach, while concession of an infrastructure is the right vehicle.

Under a typical concession contract, a private sector firm builds or rehabilitates, maintains, operates and finances a road for a period between twenty and thirty years (Beato, 1996). The government, be it local or central, grants the private firm the privilege of receiving toll payments from road users. The debt crisis in the Latin American and the Caribbean countries taught them that the fundamentals of well-behaved economy are stable prices, a competitive domestic market open to international trade, and major investments in human capital and infrastructure (Beato, 1996). The challenge facing the governments of the region however was how to facilitate investments and infrastructure (road) without jeopardizing other economic goals.

Furthermore, Beato (1996) identified five key elements of concession. These are;

- i. Authority: The authority granting road concession is often the central or state government. In Argentina and Chile central government grants concessions, while in Colombia and Uruguay local authorities are allowed to grant concession.
- ii. Scope of concession: Road concessions usually include the following activities; the construction of a new road or the rehabilitation of an existing one; the operation and maintenance of the road; administration of the toll system and financing of investments.

- iii. Term: Most regulations state that concessions have to be granted for a fixed time. It must be fixed in the contract or bid documents.
- iv. Conflicts: The regulations should include fair schemes to resolve conflicts.
- v. Selection process: Most regulations establish, explicitly or implicitly, that concessions should be granted through a public bid.

It is evident from the literature that road concession and pricing has helped in sustenance of road development and management of traffic in some developed countries of the world.

The study area

The study area is Osogbo the capital city of Osun State located between latitude 7° 46'N, longitude 4° 34' E and 7.767°N, 4.567°E. Osogbo has two local government areas (Osogbo and Olorunda Local Governments). Based on the 2006 census (provisional result) the population of Osogbo is about 287,156 people (Wikipedia, 2012). Osogbo has been a major centre in Osun division since the colonial period. The city becomes a commercial centre with the arrival of railway in 1907 which brought the colonial government of then to the threshold of the town. The town is now a highly commercial town. The busiest and most commercial parts of the town are Ajegunle, Old garage/ Orisumbare area; Olaiya/ Ogo Oluwa area; Igbona/ Ayetoro Area; and the area along Oja-Oba/ Station road. Along these areas are activities which generate trips in the town. Furthermore, Osogbo is the home of art and culture in the Yoruba traditional history. The ever-popular and crowd pulling annual Osun Osogbo festival shows that the people of Osogbo have preserved their cultural identity. This has earned the festival UNESCO recognition. The Osun groove today is a tourist center of international recognition. All these impact the movement pattern in the city.

Methodology

Type and sources of data: Primary data was used for this study. The data was derived from field work, which involved direct interview and administration of questionnaire to the road users. Information sought from the respondents included the socio-economic characteristics of the respondents, modes of transport often used, how often they travelled, cost of travel, effects of road transports on their movement, willingness to pay for road infrastructure. For the administration of questionnaire, purposeful sampling technique was used etc. The questionnaire were purposely administered randomly to the commercial vehicle and motor cycle operators at their bus stops; while private vehicle owners were randomly picked at the state government secretariat Abere, Osogbo and at the commercial central park (freedom park) at old garage in Osogbo. In all, two hundred and fifty (250) questionnaires were administered.

In addition, personal field observation was carried out to determine the type and quality of roads in the study area. The road quality was evaluated on the basis of the following indices: the conditions of road (whether tarred or un-tarred); type of surface; availability of drainage facility; use of road signs etc. Research assistants were also used for the traffic count at the three major roads in Osogbo that is, New Ikirun road, Gbongan road, and Ilesa road to determine volume of traffic in the city between 7-9am in the morning and 4-6pm in the evening for a period of one week.

Analysis of data: Descriptive statistics such as tabulations and percentages were used to summarize the socio-economic characteristics of the respondents, their modes of movement, nature and condition of roads in the city, traffic situations and people's willingness to pay for road infrastructure.

Result and Discussion:

Socio-Economic Characteristics of Respondents: The study examined the following socio-economic characteristics of the respondents: sex, age, marital status, occupation, educational level and monthly income. The study revealed that 74% of the respondents are male while 26% are female. This was because drivers and motor-cycle riders who made use of the roads were interviewed. Most of the motorist interviewed are matured and of the active age (94%) and majority of them are married (74%). The study showed further that 80% of the respondents had secondary education and above, while only 4% had no formal education. Most of the people interviewed (36%) are civil servant, 34% are artisan that are involved in different vocations such as carpenter, bricklayer, motor mechanics, while, 24% are involved in trading.

Monthly income of the respondents is another strong socio-economic parameter which may influence the respondents' use of road and ability to pay for the infrastructure. The study shows that 18% of the respondents earn less than #50,000 per month, 42% earn between #50,000 and #100,000, while the remaining 40% earn above #100,000 per month. The socio-economic characteristics of respondents as stated above indicates that most of them had deep knowledge of what it takes to concess and price road for sustainable development.

Table I: Attributes of roads in the study area.

Routes	Distance (km)	Number of lanes	Surface conditions	Drainage system	Number of potholes	Remarks
Kobongbogboe – Ayetoro	7	2	Tarred with bitumen but state of disrepair	No drainage facility.	351	Under construction into dual carriage of 4 lanes
Ayetoro – Old garage	2	2	Tarred with bitumen but state of disrepair	No drainage facility.	25	Under construction into dual carriage of 4 lanes
Olaiya – Abere	6	4	Tarred with bitumen.	Fairly okay	05	Smooth surface
Olaiya – Isale Aro	3	4	Tarred with bitumen but state of disrepair	Poorly drained.	280	Need urgent attention
Aregbe bus stop – Capital hotel	2	2	Tarred with bitumen.	Good.	-	Smooth surfaces
West bye pass ring road	7	4	Tarred with bitumen.	Over grown with weeds	-	Drainage to be cleared
Oja-oba – Power line junction	4	2	Tarred with bitumen but with a lot of potholes.	Poor.	241	State of disrepair, needs attention
Old garage-Oja-oba – Ilesa garage	5	2	Tarred with bitumen	Poor.	65	Fairly okay
Oke-fia – Okinni	5	2	Tarred with bitumen with a lot of potholes	Poor.	410	State of disrepair, needs attention
Oja-oba – OSBC	4	2	Tarred with bitumen	Poor.	79	Fairly okay
Lameco junction - Capital Hotel	2	4;2	Tarred with bitumen	Good	-	0.9km made up of 4 lanes; 1.1km 2 lanes
Igbona onitea – Oke	2	2	Well tarred with bitumen.	Fairly okay with weeds in some part	-	Smooth surface
Total	49				1,456	

Source: Author's Field work, 2013

Road Attributes in the Study Area:

Table I showed the attributes of the major roads in the study area. The total length of the roads surveyed is 49km. The study showed that only 34.7% of the roads surveyed made up of four lanes of dual carriage road while, the remaining 65.3% made up of 2 lanes of single carriage way. Most of the roads surveyed are characterized with a lot of potholes of various sizes. In all, 1,456 potholes were counted as shown in table III. The study showed that for an average of 1km, there are about 30 potholes. The field observation revealed that most of the roads in the study area do not have good drainage system which resulted in storm water that erodes the road ways (see plate 1). The study also showed that all the roads surveyed are tarred with bitumen but most of them are at the state of disrepair and need urgent attention. The study further revealed that most of the roads in the study area have few or no road signs to alert the motorist of the road conditions. Most of the people interacted with during the field observation also express various degree of inconveniences they pass through in the cause of their movement in the study area, such as delay on the road, wear and tears on the vehicles due to poor conditions of most roads. Furthermore, 36% of the respondents spent between #1000 and #2000 per

month on vehicle maintenance, while 40% spent above #2000 on vehicle maintenance per month. These they attributed to the deplorable conditions of roads in the town. 57% of the respondents also assessed roads in the town to be bad. Most of the respondents (72%) spent 30 minutes to 1 hour on a trip of about 9 kilometers due to potholes and congestions along the roads.



Plate 1: Biket Bus stop, Ikirun Road Osogbo.

Traffic Survey in the Study Area:

Table II, III, and IV show the volume of traffic count along three major roads in the city during the peak hours of the day for a week. The average volume of motorcycles that passes through Gbongan road, which is also the state secretariat road between 7-9 am is 1,128 and 1,293 between 4-6 pm. Along Ikirun road the average motorcycles in the morning (7-9am) along the road is 916 and 898 in the evening (4-6pm), while along Ilesha road the average motorcycle between 7-9 am is 695 and 677 in the (4-6pm) evening.

The study further showed that an average of 1,614 cars passes through Gbongan road between 7 and 9 am, 1637 between 4 and 6 pm. Along Ikirun road the study recorded an average of 1128 cars between 7-9 am and 1189 between 4 and 6 pm, while along Ilesha road 852 cars were recorded between 7 and 9 am and 844 between 4-6 pm. Furthermore, an average of 1005 buses was recorded along Gbongan road between 7-9 am and 1031 between 4-6 pm. Along Ikirun road, average of 528 buses was recorded between 7-9 am and 495 between 4-6 pm. On Ilesha road average of 365 buses was recorded between 7-9 am, 388 between 4-6 pm. Average of 139 Lorries and trucks were recorded between 7 and 9 am, 108

between 4 and 6 pm along Gbongan road. Similarly, 95 lorry and trucks were recorded between 7 and 9 am, 80 between 4 and 6 pm along Ikirun road. Along Ilesha road, 64 lorry and trucks were recorded between 7 and 9 am and 54 between 4 and 6 pm. Finally, along Gbongan road 52 trailers were recorded between 7-9 am and 46 between 4-6 pm. 33 trailers were recorded between 7-9 am and 32 between 4-6 pm on Ikirun road, while along Ilesha road 13 trailer was recorded between 7-9 am and 11 between 4-6 pm.

The study however, shows that the volume of traffic is very high along Gbongan road compared to the other roads. The reasons for this is as a result of the state government secretariat along the road and presence of most commercial activities along the road such as Ayegbaju international market, Banking industries and other government agencies. The road also links other major cities within and outside the state such as Ife, Ikire and Ibadan (See plate 2).

Table II: Gbongan Road

Days	7-9 am					4-6 pm				
	Motorcycle	Car	Bus	Lorry/Truck	Trailer	Motorcycle	Car	Bus	Lorry/Truck	Trailers
Sunday	680	950	615	105	30	850	1012	650	103	31
Monday	1407	1680	1141	152	51	1502	1701	1018	120	25
Tuesday	1365	1705	1011	132	42	1401	1604	998	112	45
Wednesday	1221	1802	1018	135	46	1355	1756	1102	98	44
Thursday	1198	1854	1051	121	58	1280	1950	1214	108	51
Friday	1275	1794	1115	161	64	1370	1864	1245	122	65
Saturday	756	1512	1081	170	74	1290	1580	995	92	63
Total	7896	11297	7032	976	365	9048	11462	7222	755	324
Average	1128	1614	1005	139	52	1293	1637	1031	108	46

Source: Author's field work, 2013

Table III: Ikirun Road

Days	7-9 am					4-6 pm				
	Motorcycle	Car	Bus	Lorry/Truck	Trailer	Motorcycle	Car	Bus	Lorry/Truck	Trailer
Sunday	588	832	316	66	21	605	901	330	53	26
Monday	982	1248	471	99	35	889	1401	511	88	45
Tuesday	895	1048	501	105	29	905	1068	401	95	31
Wednesday	956	1120	481	95	27	895	1248	556	65	28
Thursday	992	1301	602	71	31	999	1401	601	101	20
Friday	985	1401	625	111	38	1001	1301	586	94	25
Saturday	1012	951	701	121	48	994	1002	481	67	51
Total	6410	7901	3697	668	229	6288	8322	3466	563	226
Average	916	1128	528	95	33	898	1189	495	80	32

Source: Author's field work, 2013

Table IV: Ilesha Road

Days	7-9 am					4-6 pm				
	Motorcycle	Car	Bus	Lorry/Truck	Trailer	Motorcycle	Car	Bus	Lorry/Truck	Trailer
Sunday	475	654	295	40	10	490	701	230	35	08
Monday	784	951	305	75	21	691	981	401	65	15
Tuesday	751	890	351	69	07	751	974	381	55	09
Wednesday	801	994	405	71	12	756	894	391	61	12
Thursday	762	875	450	64	15	781	851	501	64	08
Friday	694	850	410	68	05	681	781	451	58	11
Saturday	601	750	340	58	24	588	745	360	41	15
Total	4868	5964	2556	445	94	4738	5927	2715	379	78
Average	695	852	365	64	13	677	845	388	54	11

Source: Author's field work, 2013

Road Concession and Pricing in the Study Area.

One of the objectives of this research work is to assess people's willingness in road concession and pricing in the study area to enhance sustainable urban road development. The study showed that 68% of the motorist interviewed expressed willingness to pay for road infrastructure if concession or priced, while 32% were not ready to pay for road infrastructure if concession or priced. Table V showed that 38.2% of people who are willing to pay are ready to pay at least #20.00 per trip, 50% are willing to pay #30.00 per trip, 8.8% are willing to pay #40.00 per trip, while, only 3% express readiness to pay as much as #50.00 per trip provided the road justify the cost. Most of the respondents who are not willing to pay for road infrastructure give the following reasons: political instability; high rate of corruption; bad condition of roads.

The traffic count shows an average of 17,410 vehicles plying the three major roads in the town during the peak hours. However, with the respondents' willingness to pay #30.00 per trip, it is expected that an average of #522,300.00 will be realised daily in the town and within a month #15,667,000.00 will be generated. This will be enough to maintain the roads in the town and even to construct other roads.

Table V: Amount willing to pay per trip.

Amount	Number	Percentage (%)
#20.00	65	38.2
#30.00	85	50
#40.00	15	8.8
#50.00	05	3
Total	170	100

Source: Author's field work, 2013.

Summary of Findings

The study examined the socio-economic characteristics of motorists in the study area. Most of the respondents are male drivers (74%), matured and of the active age (94%) and married (74%). The study also showed that most of the motorist have good educational background (80%) and of good income status.

Furthermore, most of the motorists are private car owners (60.4%), while others are commercial drivers and motorcycle riders. Most of the motorists ply their routes almost every day, at least 5 days in a week (92%). Only 10% of the respondents travel less than 5 kilometres in the area. 70% of the motorists also spend an average of 30 minutes to 1 hour on a trip. Majority of the motorist also spend an average of #1000 to #2000 on maintenance of their vehicles per month. This has been attributed to the deplorable conditions of most roads in the study area. The assessment of roads in the study area by the motorist showed that the roads are only fair and need the attention of both government and private investors.

The study surveyed 49 kilometres of roads, of which 65.3% of the roads surveyed made up of two lanes of single carriage way. Most of the roads are characterised with a lot of potholes. The study showed that for an average of 1km there are about 30 potholes of various sizes and depths. The field observation revealed that most of the roads in the study area do not have good drainage system which has resulted in storm water that eroded the road ways. The study further revealed that most of the roads have no roads

signs to alert the motorists of the road conditions. The study also confirmed that traffic is very much higher along Gbongan road compare to other roads in the city. This could be as a result of activities along the road such as government secretariat, and presence of commercial activities such as banking industries, Ayegbaju international market etc.

Most of the motorists express their willingness to pay for road infrastructure in case the road is concession or price (68%). Some of them are ready to pay as much as #30.00 per trip provided there is value for it (50%). Others who are not ready to pay for road infrastructure give the following reasons: high level of corruption in the country; political instability; inadequate personal income and poor conditions of roads. The study however showed that most of the roads are not in good condition and require urgent attention.

Conclusion and Recommendations

The study confirmed that most of the roads in the study area are in the state of disrepair while, some are even in a deplorable condition characterised with a lot of potholes. Some of the roads are already washed off due to lack of drainage system. This has resulted in all sorts of inconveniences experienced by the motorist such as delay on the road, congestion at the intercession point, wear and tears of their vehicles. Most road users also express their willingness to pay for road infrastructure. Experience had equally shown that government alone can no longer cope with the demands of citizens in view of her limited resources, hence the need for Private Partnership Participation (PPP). In view of this, the following policy recommendations are made.

First and foremost, government should create an enabling environment for private investors to operate in the country and Osun state in particular. This can be done by clearly stating the roles of private investors on road infrastructure in our constitution. Each state assembly is also expected to legislate this in their various states.

Government should also make unambiguous policy statement on road concession and pricing to attract private investors into the sector. In addition, government can give tax holiday to the private investors to woo them into the sector.

Continuity in government is another factor that can woo private investors into the sector. The country is therefore expected to maintain political stability and consistency in government.

Roads under the management of various governments (local, state or federal) can be priced in form of tolls to raise money for maintenance and sustenance of their roads.

Finally, this paper observes that sustainable road development is achieved in developed countries of the world through road concession and pricing that enable government to generate revenue not only for construction but also for maintenance of road networks. It is therefore strongly recommended that most roads in Osogbo especially Gbongan road, Ikirun road and Ilesha road where traffic are relatively high be concession and price for urban road sustainable and development.

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