

The Contribution of Automobile Technicians in Tackling Insecurity in Tertiary Institutions in Nigeria

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Abstract

This study investigates the activities and problems facing auto technicians in Katsina State and how such activities affect land with a view to optimizing auto repair work. The data for the study is doctrinal. The result of the analysis revealed the various problems facing auto technicians in Katsina State include: inadequate tools, low capital base, bad location, poor educational background and the lack of necessary social amenities in the workshops. The development of mechanic village, which was identified as one system that can help in solving most of the problems was formulated as a hypothesis, analyzed and tested. The hypothesis testing revealed that the establishment of mechanic village to assist auto repair activities would go a long way at solving the identified problems.

Introduction

The State is located in the north western part of Nigeria between latitudes 11o08 ' N and 13 o22' N and longitudes 6 o52' E and 9o 20'E. It covers a land area of about 24,194km² with Jigawa and Kano States to the east, Kaduna State to the south and Zamfara State to the west. It also shares an international boundary with Niger Republic to the north.

The population of the State according to the National Population Commission is 5,801,584- Male: 2,948,279; Female: 2,853,305. Katsina is blessed with a vast arable land which makes the State an important agricultural center producing crops like cotton, groundnut, millet, guinea corn, maize, rice, wheat and vegetables. It is also one of the few states in the country where crops are grown all the year round. Apart from farming during the rainy season, dry season farming is done along river banks and along the numerous dams built by the State and Federal Governments. Katsina city, the capital, is a tourist attraction because of the wall that surrounds it with its seven different gates. The wall was built about 900 years ago during the

reign of King Murabus. The Emir's palaces in Katsina and Daura are also tourist attractions because of their unique architectural structure. The Katsina Teacher's College built in 1922 is the oldest institution of learning in the northern states.

The use of automobile vehicles on our roads plays a key role in road transportation system. In Katsina, and Nigeria where land transport is largely in use compared to water transportation and other modes of transportation, the use of automobile vehicles, either diesel or petrol driven is predominant. However, the vehicles cannot remain new forever, as the parts breakdown and wear out, and so, must be maintained. (Akinola 1995).

Maintenance had been defined as an activity applicable to all systems, natural and artificial, to cause such systems to remain unaltered or unimpaired. It is the repair activity carried out on vehicles or other machineries to keep them unaltered, and if altered, to restore them to their original state.

(Okah-Avae 1995; Akinola and Ogedengbe 2005).

The objective of this paper therefore, is to identify and evaluate the activities problems facing auto technicians in Katsina State, and its impact in tackling insecurity in tertiary institutions in Nigeria.

The Modern Technological Activities of Automobile in Katsina State

The designs of vehicles in Katsina, have advanced to a very sophisticated level, and unlike the old mechanically operated vehicle systems, the modern vehicles are being operated and controlled by computerized electronic sensors. For example, latest vehicles' ignition systems are electrically controlled without employing the old use of manually reset contact breaker. Common to majority of the new trend cars is the brain box and other electronic gadgets that sense instant faults in the vehicle and immediately notifies the driver through the dashboard display. The modern trend of mechanical services therefore requires the use of more complex and highly technological and special diagnostic equipment to analyse vehicle faults for repair and service. To ensure this for efficiency, safety, comfort and style, competent professional hands are required

As vehicle technology and maintenance processes are advancing, the problems facing Automobile technicians in the course of discharging their duties have adversely affected the

transportation system, and hence affecting all the other systems in the course of discharging their duties have adversely affected the transportation system, and hence affecting all the other systems in the country. Some of the results of the auto technician problems include: unpredictable breakdown of vehicles on the highways, failure of vehicle parts such as brakes; resulting in accidents and loss of lives, delay and failure of important appointments, and heavy debts incurred by many car owners on maintenance.

A system with an optimum performance can be generated if all problems identified are tackled (Lindley, *et al.* 1977; Jarett 1977; Groover 1992). This will go a long way in alleviating the problems being encountered by the auto technicians in our society.

The high level of usage of vehicles for both private and commercial activities coupled with the inflow of second hand vehicles popularly called —Tokunbo brought about the need for very efficient and effective maintenance. Often times, the garages where the maintenance activities are carried out are of low capital base and are makeshift establishments either located on slippery terrains, under tree sheds, canopy made of banana or palm fronds, etc. No effective maintenance can take place in such environments.

Similarly a close look at the equipment being used reveals the level of poverty of these technicians. In most places, service pits are not available and where available, there is no reinforcement at the sides to hold loose sands in place. No accuracy of either balancing or alignment could be obtained.

New vehicles are the result of technological development, which calls for literate hands to handle.

With all these facts, there is the need for a thorough analysis of the existing practice and a synthesis of a comprehensive and management oriented practice to put the maintenance culture as what it should be. It is against all these facts that this study was undertaken.

The Impacts of Auto-Mechanic Workshops on Soil and Groundwater in Katsina State Metropolis

The environment is the totality of biological and non-biological factors that affects an organism's life, making up the abiotic and biotic components. That is, the environment describes all plants and animals (living or dead), land, water and air (Bayero, 2004). There are various changes which occur in the environment, due to natural or artificial causes. Major

factors contributing to environmental problems include human population increase, industrial development and urbanization, unsustainable use of resources and local changes. Maduka (2004) defined pollution as the introduction, by man, into the environment, substances or energy, liable to cause hazard to human health, harm to living resources and ecological systems, damage to structures or amenity or interference with legitimate uses of the environment.

Environmental pollution is therefore the unfavourable alteration of our environment as a result of wastes from man's activities, changes in radiation levels, physico-chemical characteristics and abundance of organisms in a harmful way. Thus, a pollutant is a sub-stance that occurs in the environment, at least in part, as a result of human activities, and which has deleterious effect on the environment. Land pollution deals with the terrestrial environment; which extends from the top of the growing vegetation to the capillary fringe of groundwater, the primary home of most living things on earth. The rains carry non-degradable pollutants and wastes into the soil, groundwater and nearby streams. According to United Nation (UN) (1991), some of the undesirable elements that commonly pollute the environment include natural organics (phenols, for-maldehyde); heavy metals (lead, nickel, zinc, cad-mium, copper, chromium); inorganic (ammonia, cyanides, fluorides, nitrites, and sulphites); synthetic organics (pesticides, herbicides, detergents); acid and alkaline substances; mineral oils, fats and floatable substances; suspended solids and colloids; nutrient substances like nitrogen, phosphorus, sulphates as well as radioactive materials. In mechanic workshops, there are accidental or deliberate releases or discharge of petrol, diesel, solvents, grease, and lubricants on the land and the atmosphere. Many of these petroleum products are organic chemicals that can be highly toxic and hazardous to soil fauna and man. The use of automobiles has also led to trace element and heavy metalscontaminated soil, which have grave consequences for soil dwelling organisms. According to Gupta and Gupta (1998), the toxicity or effects of heavy metals are consequences of an organism's position in the food chain, while in others; they are based on the genetic abnormalities as a result of physiological impairments. Due to the strong implications of pollution by auto-mobile workshops on the environment and the cosmopolitan nature of Ibadan City (tagged the largest city in West Africa), this study was carried out to determine the pollution effects of auto-mechanic workshops on the soil and groundwater environment of Ibadan metropolis and identify the

implications of this on the immediate environment and planning of the metropolis to meet millennium development goals.

Katsina Automobile Import Ban: Illegal Land Routes

As car dealers in the country exploit the numerous porous borders, the Nigeria Customs Service (NCS) deploys more personnel to enforce the ban on imports of cars through land borders. With the implementation on the ban of used and new cars imports through land borders into the country coming into effect from January 1, 2017, vehicle dealers have revealed that many illegal routes, inadequate preparation and the high cost of clearing vehicles at Nigeria sea ports are threatening the success of the policy. One of the major car dealers in Sokoto State, who only gave his name as Abubakar, said the policy may not reduce the influx of especially used cars as there are many smuggling routes along Illela town in the state.

But the dealer supports the policy as he said it will create more opportunities for Nigerians. He said:

—It will open a lot of opportunities to us because we have our own routes of bringing in cars, this may translate into more profits to car dealers.¶ Abubakar urged the federal government to keep to its promise of reducing taxes which would encourage dealers to import cars through the sea ports just like it is done in neighboring Benin Republic. At the Illela border post, a Customs officer who was not authorised to speak on the issue confirmed to our correspondent that smugglers are always taking advantage of the porous borders. He said:

—We hardly issue customs duty to three cars in a month as the smugglers are not coming through our posts. There are over 1000 secret routes known only to smugglers. So, the ban may not be so effective because of the borders.¶ In Katsina, a border state with Niger Republic, our correspondent who spoke to some car dealers and drivers who specialize in bringing in vehicles through both legal and illegal routes, said the ban through the land borders does not matter for they know their —ways and methods.¶ They revealed that what worries them most is the high and fluctuating value of Foreign Exchange (forex) which has jerked up the cost of doing businesses and not the ban.

A driver and mechanic, Bishir Ali said the high cost of exchanging Naira for French Francs used in

Benin Republic, has caused a decline in business. —We used to exchange a Franc for N340 to N360 in the past, but now it sells for N760 to N780 and people no longer can afford it, he said.

Some few dealers who can still afford the exchange rate engage special drivers like him to bring in cars to Nigeria, thereby evading the payment of customs duty, he explained. Another driver, Saidu based in Jibia, Katsina State, said one of the ways to evade Customs officers at the border, is by buying a car from Niger Republic and fixing a Nigerian number plate in the pretext of being a tourist or merchant that had gone to trade at Maradi and coming back to the country. An agent and resident of Kongolom border in the state, Umaru Akama Shirwa admitted that business has been difficult with few cars coming in because of the economic recession.

Checks at the Katsina Nigeria Customs Service border command revealed that some officers allegedly connive with dealers and drivers after paying a token of between N25, 000 to N40, 000 to move in vehicles from Maradi and Maimujiya towns of Niger Republic to Nigeria. These dealers reportedly pay all legal dues in Cotonou, Benin Republic, drive to Niger Republic to settle the country's taxes and levies and then allegedly hand over vehicles to Custom officers to pass them through to Nigeria. The Katsina State chairman of car dealers association, Salisu Ibrahim Abubakar said they are not against the federal government policy, but worried by the hasty implementation, which ought not to be so until some measures are adopted. Some of the measures, he suggested, include making operational the proposed inland

Automobile Companies Activity In Katsina Sate: Fenix System is Nigeria's Leading Car Tracking Company

Fenix system is the only Car tracking company in Katsina State, Nigeria that is duly registered with Nigerian Communication Commission (NCC) and Standard Organization of Nigeria (SON). We've been providing top notch car security services to vehicle owners in Katsina State, Nigeria for over 5 years now and you can be rest assured that we are the best organization to secure your fleet or cars with no hassles. Our clientele ranges from corporate organizations to individuals who want to enjoy guaranteed security for their vehicles. Fenix offer a comprehensive Fleet Management Solution and the required technical support.

With a well trained technical team offering installations and maintenance nationwide. Looking For Top Car Tracking Company In Katsina State, Nigeria.

In 2014, we were rated the best in the Telemetry survey conducted by the Association of Telemetry Professionals and We have over the years proven that we are indeed the best of the best. Without doubt there are over a thousand car tracking companies in Katsina State, Nigeria but none of them can offer the exceptional services we give our clients. We provide free consultation and guidance for every vehicle owner that which to secure their assets. Our car security system ranges from steering locks to vehicle alarm Security system. So if you are want a total security for your car, then you are at the right place.

We are located here in Lagos state, Nigeria. You can find us at #19, Ogunbanwo Street, Ketu, Lagos.

We have offices in Port Harcourt and Abuja. We believe from these locations, we can serve clients from any part of Nigeria. Unlike other vehicle Tracking companies in Katsina State, Nigeria, we don't extra charge our clients. All our tracking packages are once off payments. No monthly Subscription charges! No yearly Subscription charges! You pay once and your automobile is secured for life. So why wouldn't you work with us? Do you want an honest and customer friendly car tracker in Katsina State, Nigeria ?

Observation

Most auto technicians face a lot of problems in their every day practice. This calls for an immediate solution to achieving a standard workshop system with optimum performance. The problems being faced by the auto technicians are vast, but could best be summarized as follows:

Problem of Inadequate Tools

The use of inadequate outdated sworn tools in the execution of jobs in the workshops lead car owners into unnecessary danger. Most of these technicians use tools of low quality because they cannot afford the high quality ones that enhance proper fitting required. Engines are removed manually instead of using crane or hydraulic lift. This was established in Fig. 6, which shows that

78% of the workshops interviewed do not have adequate tools while the remaining 22% that appear to have fairly adequate tools have such tools characterized with sub-standard attribute. The results are stress and consequent damage to auto parts.

Problem of Bad Location

Workshop location stands to be another major problem facing our auto technicians. A welllocated workshop allows for accessibility and visibility. Fig. 3 implied that 78% of the respondents acquired their land through rent, 19% through lease and only 3% through outright purchase, while Fig. 4 showed that only 31% of the respondents have cordial relationship with their landlords. The relevant authorities do not give adequate attention to the allocation of land for auto-workshop establishment. Rather they allocate land in areas regarded as setback y to estate areas, industrial areas and some others. These allocated areas are usually very small to accommodate all the required section for auto repairs. Road expansion leads to relocation of such workshop, which have negative effect on the new set up.

Poor Educational Background

From Fig. 2, only 6% of the auto technicians interviewed were Ordinary National Diploma (OND) holders, which represent the highest educational qualification of all the respondents. Eight percents had City and Guilds Certificates, 19% primary school, 11% school certificates and 56% apprenticeship. This has caused a major setback in that most of the auto technicians are ignorant and not quite familiar with the advancing technological know-how of the trade. Some of them cannot read and write, and so find it difficult referring to instruction manuals.

Low Capital Base

75% of the auto technicians interviewed have a working capital less than a ₦100,000.00, 17% are operating between ₦101,000.00 and ₦250,000.00, 8% are operating between ₦251,000.00 and

₦1,000,000.00, where 1 USD \approx ₦118.5 (NGN, Nigerian Naira). This implied that most auto technicians' workshops are of low standard because of low capital base. Many of the technicians established workshops that can best be described as oil changing centers.

Conclusion

The problems facing auto technicians have been investigated, and attempt has been made at proffering solutions to the various problems identified. The establishment of mechanic village has been identified as the best solution to the numerous problems, if backed by relevant authorities. There are many different chemicals, substances and processes used at an auto-mechanic workshop, which are potentially dangerous both to the environment and to the health of human beings as well as animals. It was clear from the results of the analytical studies of the physicochemical parameters and heavy metals determination of both soil and

groundwater from auto-mechanic villages, of Katsina metropolis that there is a high degree of contamination and pollution. It has been observed that the various pollutants including the heavy metals and oil and grease build up to very high concentrations in the soil, and thereby seep or percolate into the groundwater, thereby posing great hazards to the people that consume the water, and also great hazards to the soil. The soil quality becomes compromised, thus posing challenges to groundwater due to seepage during the raining season. This not only affects the human population that depend on such water, but the soil fauna are equally decimated. Most of the heavy metals analyzed and the level of their presence can hardly support soil animal life.

Suggestion

Auto technicians should be educated through the organization of seminars/ workshops, exhibitions and the likes for them and this can be done easily when they are together in selected locations;

Government/wealthy individuals should embark on the development of mechanic villages that should be let out to auto technicians at a subsidized rate. However, government should enact laws restraining any auto technician from operating repair centre outside a mechanic village. This will solve some of the problems they are facing on acquisition of land facility and other necessary facilities for their workshops.

Such village should be planned to accommodate panel beater, painter and auto electricians as analysis had revealed that when together, their productivity and efficiency are better.

Also, availability of spare parts and easy access to spare parts market should be taken into consideration when determining the location of such village.

Such village, it is believed will facilitate the provision of certain expensive facilities required for increased productivity that could be shared for use among the occupant of the village. This can be easily achieved as people within the same village can join together to procure expensive equipment and other facilities that are of mutual benefit to them.

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