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Leveling and its effect on the service provision of long distance bus transport in Africa: The case of Addis Ababa

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The study presents the intent for making levels among buses and its effect on the service provision of Long Distance Buses (LDB) Transport that emanates from Addis Ababa. The methodology focused more on both primary and secondary sources. The primary informants were principally distinguished from the passengers, operators, and key government officials from the transport office include the head of bus terminal and association, and selected experts. In terms of analysis, the qualitative approach was done by using thick description on the issue. The finding prevails that there are remarkable changes that have from the practice of Business Process re-Engineering (BPR) system since 2009. Notable changes are seen in the areas of service provision such as ticketing, getting dispatch, selecting routes, setting fare for the trip, addressing the service to all parts of the nation and others. In the level system, the buses are classified in the sector into three levels: level 1, level 2 and level 3. The study explores that passengers would prefer to make mobility according to their income level to its service quality. The priority points of passengers for intercity mobility lie more on less transport cost than the comfort and facility of buses. Thus, leveling brings a visible change on the overwhelming aspects of the industry. It is recommended that the government should follow and improve existing service provision for it not to be like that of the former.

Key words: Industry, leveling, on-journey season, dispatch and long distance bus.

INTRODUCTION

Ethiopia is found in the horn of Africa (Figure 1), with an area coverage of approximately 1,221,900 square kilometers. It is nearly the size of France, Germany and the United Kingdom combined (AACC, 2009) together. Ethiopia is also astronomically located at 3°-15°N and 33°- 48°E (ERA, 2005; CSA, 2007). The elevation of the nation ranges from 1,500 to 3,000 m above sea level. Ethiopia had a population of 79.2 million in 2009. The present population of Ethiopia is more than 80 million and it will reach 106 million by 2020. It is projected that it will reach 106 million in 2020 and about 180 million in 2050 (Oladele, 2010). The nation is a home of unprecedentedly fast growing population (about 3.2%) (FDRE, 2008), with rapid urbanization (about 6%). This made the nation the
second most populous in Africa, after Nigeria. Ethiopia is relatively large and populous but land locked nation in Eastern Africa and categorized among poorest countries in the world.

The physical set up of Addis Ababa is found at the heart of the nation and is located at 9°02’N to 9.03°N and 38°44’E to 38.74°E (ERA, 2005; CSA, 2007). Addis Ababa (Ethiopian Mapping Authority) is the capital city of Ethiopia and Africa. Again, it is the largest city in Ethiopia with a population of 3,384,569 (CSA, 2007). Various estimates depict that in 2020, the city is expected to host 6-7 million inhabitants (Ignis, 2008 as cited in Mesfine, 2009). The City of Addis Ababa has the dual status of both a city and a State capital (CSA, 2007; MoFED, 2006).

The location of intercity bus terminals in the city

Transportation has a role to play for economic growth and social development of Ethiopia. Land transportation in general is among other modes, and road transport in particular is the most widely used transport sector all over the world. It also provides a base for local, national, regional and international flow of goods and passengers. The tragedy here is not the rise of demand for basic needs such as food and shelter but for efficient services of transportation for fast, economic and safe provision of goods, services to passengers. The dwellers of the nation heavily depend on the road transport to satisfy the growing demand of the people.

The development and expansion of road transport have made various linkages like forward, backward, service, and trade linkage between and among towns, cities and even at rural areas. In the nation, there are three modal systems of transport that exist (road, air and rail). Nonetheless, studies conducted in Ethiopia in ERA (2005) and EFTA (2011) showed that about 99.31 per cent of the total passengers used road transport for their mobility, 0.65 per cent used airline and 0.04 per cent used railway transport. This indicates that mobility with regard to the growth of passenger road transport (PRT) culture of the society highly depends on this industry than other modes (ERA, 2005).

EFTA (2011) report indicated that there is a slight growth in the passenger transport industry particularly in the LDB (about 8.6% per annum). The maximum growth (74.7%) is registered in the small commercial PRT, which
rise is seen on medium (Mid) bus transport (about 15.7%). The report further indicates that in 2010, the total passenger transport vehicles that rigorously served the society were 13,684 buses. Of these, about 7.75% were LDB with 44 and above seats and the rest 12,623 (about 92.25%) were buses with 24-44 seats. This indicates that the growth of LDB is relatively low in terms of quantity. With regard to the number and types of buses by levels, only 23 buses work at level 1, 381 buses as level 2 and 657 buses as level 3. Only about 61.9% of the total buses are found in the nation (EFTA, 2011). This puts the adequacy of the service provision into questions. However, according to EFTA report in 2004 to 2008, the growth rate of transported passengers carried by medium and large buses has risen from 4.1 to 6.7%. Again, the Selam Bus PLC Foundation Document of 2009 shows that currently the total number of operational maxi-buses in the nation is around 1,130. This means 1136 people are being served by one seat. The existing passenger- people ratio is about 1:72.818; that means one bus should serve about 72,818 people. The ratio of medium scale is about 1:6,467, but the seat ratio is 1:111. This figure indicates the scarcity of service provision. Existing studies on transport which were carried out in the nation did not properly address the issue under investigation. For instance, ERA (2005), in designing national urban transport policy, examined only the general nature of road network rather than focusing on leveling effect on LDB. Mintesnot and Takano (2007) made a diagnostic evaluation of public transportation mode choice in Addis Ababa with a special focus on intra-urban government bus transport. Again, AACC (2009) studied the management of commercial road transport in Ethiopia. And various studies of EFTA (2011) are on the supply and demand of the industry, uncovered sites for PRT, the major roles and challenges with its solutions, and the rate of satisfaction on bus terminals. These studies also give less weight to all types of intercity bus transportation especially on leveling and its effect on the service provision of LDB transport. However, they did not focus on the overall nature of inter-urban private PRT industry especially on LDB. In 2009, the idea of making buses in levels began and was implemented for about 5 years and practiced throughout the nation; but, its effect has not been studied. This indicates that there is a gap in the studies regarding the effect of leveling on the service provision of inter-urban long distance bus. Therefore, this study intends to fill that gap and investigates the effect of leveling on the service provision of LDB transport in Ethiopia.

OBJECTIVES AND METHODOLOGY

The general objective of this study is to assess the effect of making levels on LDB transport that brings visible change on the service provision sector with emphasis on the buses that radiate from Addis Ababa. But the specific ones are: 1, to compare the service situation and service coverage of the industry before and after 2009; 2, to assess the major roles of making buses in Levels and 3, to scrutinize negative effects of making levels among long distance buses. Therefore, the following methodological mechanism is undertaken. This study was carried out in Addis Ababa, in Mercato bus terminals. In the city, there are about three bus terminals: Mercato, Shegole and Kality. However, this study was conducted only in Mercato bus terminal due to its service delivery and geographical setting; it is placed in the heart of the city. It has been the main and only national bus terminal that serves the whole nation. Both qualitative and quantitative approaches were used in this work, but high weight is given to qualitative approaches. The qualitative approaches entail using primary sources that are obtained by interview, structured interview, observation tools, and focus group discussions. However, the quantitative analyses were made by using the survey data via SPSS software. Additional data were also collected via maps and other tools. The GPS tool was used to show the map in order to indicate the sites of the bus terminals. The selected informants were principally distinguished from the users of formal LDB transport who were on and off the bus terminals. Both the informal operators and users were also selected by convenient sampling. The key government officials currently work on formal passenger road transport (PRT) such as heads of Mercato bus terminal, head of LDB associations, head of traffic officers, and experts at federal transport office. The main informants were particularly the off-journey passengers in the place of loading; they were parts of the Focus group discussion (FGD), which comprised 4 or 5 participants. The observation technique was guided by check list that focuses on the effect of leveling on the service provision of the sector. The qualitative analysis was done by using dense description that clarified the issue; and basic statistics like percentage was also used.

RESULTS AND DISCUSSION

This study focuses more on the visible change that occurs in the sector (Service Provision) and makes comparative advantage as well as the side effects of leveling. However, hereunder the writers discuss the service and area coverage of the sector before 2009.

The service situation and area coverage of LDB before 2009

This section shows that remarkable changes have been made in the sector since 2009. It is taken as the year when the BPR (Business process system re-engineering) was practiced to make a substantial reform on the sector. The year 2009 also acts as a turning point to make change in the industry. The sector has seen rise in terms of both quality and quantity. These changes are seen in the areas of providing ticket, bus dispatching, the selection of routes, and decision on additional rise of trip fare.
However, in the past few years, the associations that provided the services towards to their source areas from the formal industry were very limited. Historically, the associations are partially named Wello Ferese (horse of the Wollo people), Kagnew Shaleka (mobility of the bus), Mekonin Negash and the likes. This shows that the industry worked less within the affiliation areas of the owner and operators of the bus. Thus, they are not willing and allowed to serve all parts of the society, since they have assigned and scheduled routes. It is revealed that before 2009, the transport system was too poor and bad. In it, passengers had to wait for long for their turn.

In the past, the buses operators demanded for same revenue from the passengers for similar distance without make difference in the quality of their service. The service provided was also monolithic in terms of fare, facility and others across all buses regardless of bus type and quality. It is undertaken because it was too simple to get; nobody cared about the state of the bus and the rate of satisfaction, comfort and facility of the passengers. There were various times of idleness on the buses during the trips.

In terms of service provision in the terminal, in the former case, destination towns were called out and the passengers were appealed to via brokers. And also, there were no alternative buses made ready for the passengers to suit their choice and payment ability. Then bus operators used to struggle for passengers to get on their buses. There was no prior booking of seat and buses as per first come, first served standard. And also, the passenger was forced to hold the seats and buses competitively on a long queue. In this combating process to get seat, they were also exposed to pick pockets. Apart from pickpockets, passengers faced a lot of agony, and other related negative problems.

Again, before 2009, there was no competition among associations, as just two associations dominated the industry then. There were no laid down rules on the colours for coating the buses; all the buses had different colors based on the choice of the owners. The service was not meant for people from all walks of life, both literate and illiterate classes of the society.

Before 2009, provision was not made to distribute any light food and soft drink while travelling. The minor practice seen before 2009 is there was no late dispatch from the terminal. The only dispatch was done early in the morning. As a result, the passengers were accustomed to make their travel at late in the evening and early in the morning. This made the passengers to combat in the morning to get the service at the terminal. In the past, the distribution of dispatch is also done only by force and passengers get on the buses by turn and not by their preference.

Buses could not be identified by color to show their level of service provision. The passengers identified their buses by side, plate number and by the direction indicated on the front part of the bus. All buses were placed in jeopardize and intermix way and based on their flow of direction only. In actual sense, the loading sites of buses are not based on their direction in the terminal. However, in rare case, they are placed according to their direction posted on their province and doors. For instance, Wello, Gojam, Sidamo, Jimma like doors but do not stand as per their level.

Noticeable Changes on service provision and coverage since 2009

The year 2009 served as a turning point for dynamic changes in the sector. Since 2009, passengers now travel based on their choice and paying capacity. The former way of carrying passengers at late evenings reduced as well as the camping of passengers at the terminal as usual. In the past, the distribution of dispatch was done by turn not by the preference of the users.

Before 2009, the system has no inherent mechanism to improve its service provision, and it also addressed its service to selected areas only. But after the commencement of BPR in 2009, the sector tries to provide its service to all parts of the nation. However, it shares their work to different directions based on the levels of buses. The work is shared within many associations and anti-completion is now phased out so that the market economy is allowed to work; so that if there is success in the business, workers are rewarded and punished if there is failure.

With regard to transport fare, it was done based on the level of buses. On average, the amount to be paid is based on the distance and facility of the bus. Rhys (1972) stated that passenger fares vary with distance, vehicle size and quality of service, road conditions, demand pattern, extent of regulation and extent of competition. However, before 2009, it was not based on the nature of the bus and quality of service; but now, it is based on that. This finding also shows that the amount of trip within 300 km distance differs from 5 to 10 birr, depending on the bus level. For instance, at the time of this survey, the distance from Addis Ababa to Wolayita Sodo using one level bus costs about 115 birr (6.50 USD); but if the mobility is made on level two and three buses, the prices are expected to be 102 and 107 birr, respectively. This implies that making of level has changed the charge for trip. It is found that this slight difference between levels has also contributed to the satisfaction of the passenger as they travel based on their paying ability.

The leveling system alternatively brings the system of
coating of buses. The other identification techniques and role of leveling are to identify buses by color. The service provision of the buses is very inclusive and addresses mainly the literate classes of the society. The operators provide qualified buses to the industry by coating the buses with standard colors (Figure 2). Therefore, the passengers can easily identify the buses of their level by color, and not only on level types and side number. MOTC laid down rules that the service is meant for all users whether literate or illiterate.

Now, there is provision of light food (Ambasha) and soft drinks, though they are expensive. Actually, the price of Ambasha is inclusive within ticketing price or else its price is too low. In most buses, the operators are distributed for passengers after driving the quarter of their total distance. And it has played important roles as a linking food for lunch.

In the former case, that is, before 2009, in the terminal, all buses were placed in intermix way and based on their flow of direction only. In actual sense, the loading sites of buses are not based on the direction of the buses in the terminal. However, in rare case, they stand according to the direction posted on their province and doors. The known old doors that are commonly used in the system are for instance Wello, Gojam, Sidamo, Jimma and Nekemite doors, but not according to their level. The service was very routine and traditional and it did not provide based on the expected facility and capacity of the industry.

In light of this, Figure 2 shows that special buses are identified by red brown color on the main body of the bus coated with white stripe. Whereas, Level one, two and three buses were coated with white color on the main body; and the above half is coated with green, blue and yellow colors respectively. In general, the policy ground of the sector was adjusted as per MOTC (2011) for the assurance of level standard that worked on all Passenger Road Transport. Thus, making division is an important component to make the service provision of the industry more effective.

The major importance of making buses in levels

The making of buses in level has provided substantial roles to the sector as well as the passengers. These roles can be seen from the passenger, operators, government and other sides. The survey explores the importance of making leveling on LDB transport. About 39% of operators reported that it has made passengers to travel according to their choice and paying ability. And about 20% of them reflected that it gives revenue to the government in the form of collecting tax from the buses as per their level, getting income from the buses when
They dispatch in the name of commission cost, service charge and others. It helps the investors to be encouraged and invest in the industry. It attracts and invites new investors to join the business. It brings healthy competition between operators and owner (Figure 3). This implies that it is important to passengers, operators and government.

Ambasha is distributed to the passenger without demanding additional cost and its role is to provide brunch. It is found that it is a common culture of the community not to begin their journey, which is mostly early in the morning, with food; and so, most of the time they do not take breakfast. This also implies that it is better to upgrade the provision of quality service and raise the rate of satisfaction of the users. Usually, taking breakfast is commonly at the middle of the journey. It also takes place after driving for at least 4 to 5 h. Therefore, the provision of soft drink and light food is better to maximize the satisfaction of the customers. And it helps to provide better option for the passengers to make the travel as per their affordability and choice.

Now, there is competition among buses by levels. The level one bus would get priority to select the routes first, then followed by level two and three buses, respectively. After 2009 and onward, service is provided by competition like bids, franchise and others.

However, after BPR, the other change that occurred is the placement of buses in the terminals based on their direction and levels. Buses make queue as per their schedule. For instance, level one bus makes horizontal queue in the entrance of the terminal and waits till the next morning to provide service. Now, tickets are given to passengers in the ticket offices which are located based on their level (Figure 4). The level one bus association members are found together as well as levels two and three in other sites of the terminal.

In general, notable changes have affected the suppliers, mainly operators (including associations, owners, co-drivers, drivers), government and passengers. Thus, the leveling is very important for the passengers, operators and government.

Seeming disadvantages of making level among long distance buses

Before looking at the other side of leveling, let us look at the effect of making the bus by level. It has both positive and negative effects on the system. It is difficult to make some action that would not be overwhelmingly positive. Even the possible effect of leveling is clearly mentioned in this paper. However, it may have negative effect on others. It might benefit some classes or victimize the others. Few informants also forwarded the following analogy that making of level has negative effect. Taking this into account, selected buses should be given levels in order chase out from the industry those that cannot cope with the existing systems in the sector.

As the finding shows that in 2009, nearly 62% of the existing buses were in level three and in two consecutive years (2009 and 2010) more than 160 long distance buses or 16% of the total buses (144 and 36 were out of
The leveling system (EFTA, 2011) were in level 3. This implies that about one-fifth of the total buses were gone out of the system. Apart from the fact that the buses are out dated due to ageing, which makes users not to prefer them, the service quality is poor and inefficient, safety of the users is very low and so on. They are probably discarded from the sector because of poor service.

The idea of EFTA report is also observed in this survey. This survey also discloses that about half of the buses were old. About 72% of the buses are averagely old. Again, with regard to the service year and age of LDB, about 42% had served for 10 to 15 years. This also implies that about three-fourth of the total buses are very old and need improvement. Hence, their final fate would be to shift to intra city service, especially taxi service and to provide contract service within the city. Even in some cases, they can be rebuilt as freight vehicles and be chased out from the passenger sector. Lastly, they can also be used as a substitute material or as spare part for other buses and vehicles. Usually, this action of the operators is termed as ‘the bus that went to butcher’. The butcheries are also split into various components that are used as spare part for other buses and vehicles.

This study expresses that leveling has brought more marginalization on the 3rd level buses and less on level 2. The level three buses have been stigmatized, which makes them to flee out of the industry. It is realized that level three buses would not have access to carry passengers. Thus, one can infer that making leveling of buses has slight negative effect on the income of few owners, operators and others. However, it does not mean that leveling is not necessary. That is why the writers argue that it has seemingly negative effect on the third level buses and in the near future, it might affect level two.

SUMMARY AND RECOMMENDATIONS

Summary

The study presents leveling and its effect on the service provided by Long Distance Bus. It is obvious that since 2009 buses are given levels. It also focuses on the bus found in Ethiopia with emphasis on the buses providing service for intercity travel. There are remarkable changes

Figure 4. Summarized changes detected before and after 2009. Source: Prepared by researcher in 2013.
due to the practice of BPR since 2009. Service was given based on the income level of the passenger instead of its quality due to lack of awareness and income. The study finding prevailed that as both the awareness and income of passengers increase, the passengers’ preference to travel on level one bus also increases. Thus, the priority placed on intercity travel is on less transport cost instead of comfort and facility of buses.

The notable change is mainly significant for the passengers and comparatively less advantage is for the operators and government. The areas of change focus mainly on the service provision of the industry. It is also good to provide the service to all parts of the nation and beyond. Thus, leveling brings a visible change on the overwhelming aspects of the industry.

Recommendations

From the foregoing, the following key points are provided to improve the overall nature of the sector. The following remedial strategies are forwarded to the association, stockholders and concerned government officials.

1. Enhance the advanced improvement on the service of the sector and strict emphasis of the government,
2. The government should follow and improve the existing provision in order not to go back to the former system,
3. To open and expand ticket office to major destination towns and to develop web site,
4. Upgrade the Associations into corporation,
5. Provide an integrative work with stakeholders to reduce congestion in the terminal,
6. Provision of short training with certificates in professional competence (CPCs) to Long Distance Buses Operators,
7. government should set a clear policy ground for long distance bus in particular and PRT in general and
8. Proper and timely data handling at all levels of Transport Office.

Conflict of Interests

The author has not declared any conflict of interests

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