PASSENGER TRANSPORT BY LIGHT DELIVERY VEHICLE (LDV) IN THE VHEMBE DISTRICT MUNICIPALITY OF LIMPOPO PROVINCE, SOUTH AFRICA

TEMUNWANA

Email: munwanate@webmail.co.za Cell: +27(0)72 55 35 963

ABSTRACT

The purpose of this paper is to investigate scientifically and in-depth, the suitability and extent of use of light delivery vehicles (LDVs) as passenger transport, reasons for using LDVs as a mode of transport, challenges and – advantages of such use in Vhembe District Municipality, Limpopo Province.

The study employed a triangulation mixed method, where both qualitative and quantitative research methods on the LDV passenger transport service in Vhembe District Municipality, were used. Literature reviews and interviews were used to collect both secondary and primary data respectively.

The results show that the service is not a recent practice, for example, 55% of the operators have been operating for more than a year to five years, whilst 6% has been operating for more than 10years. Travelling to school was isolated as the most common reason (47%) for using LDVs, whilst (12%) use LDVs for business trips. About (37%) indicated that the door-to-door service is the most significant advantage of using LDVs over other formal or conventional modes of transport. 48% of the respondents considered overloading as the most common challenge encountered by LDVs passengers.

The study concluded that LDV passenger transport service is an established, regular, demand-driven, sustainable and expanding reality, operating alongside other transport services especially in remote areas. In addition, the study found that LDV transport services provide some short-term advantages to passengers, which could lead to long-term advantages such as improved service delivery and operating circumstances. However, although operators apparently face increasing pressure to upgrade their service, because the service is illegal and thus not officially regulated, operators have scope for and often neglect the safety and comfort of their passengers.

Key Words: Light delivery vehicles, passenger transport, rural areas, demand-driven services, mainstreaming LDV services

1. INTRODUCTION

It has been well documented that inadequate transport systems in regions can slow socioeconomic development and thus poverty reduction (Njenga & Davis, 2003). Such inadequate transport systems often impede communities' access to essential services, employment and social networks. Efforts towards improving transport systems in rural areas in sub-Saharan African countries such as South Africa, where transport-related infrastructure is generally poor because of limited resources, are therefore essential (Starkey, 2007).

Given the importance of strengthening rural transport and anecdotal evidence that Light Delivery Vehicles (LDVs) rendered a vital, although not necessarily safe, informal passenger transport service in rural areas such as Vhembe District Municipality of Limpopo Province, South Africa (Wosiyana, 2005), an in-depth study of this service is important in the district.

The study was initiated to confirm the preliminary indications that the informal LDV transport service in Vhembe District was more accessible than formal public transport services, especially in remote villages (Vhembe District Municipality, 2012).

Anecdotal evidence also pointed to the service being faster, cheaper and more reliable than formal passenger transport services. However, because the service was illegal and thus not officially regulated, operators had scope for neglecting the safety and comfort of their passengers, although they apparently faced increasing pressure to upgrade their service. Given the disconnection between legislation and practical reality, empirically based ways to strengthen this service and integrate it with the mainstream transport system needs to be found. Against this background, the study set the following research questions:

- What is the nature and extent of the use of LDVs to transport passengers?
- What are the reasons for using LDVs as a public transport mode?
- What are the advantages and challenges of using LDVs as a public transport mode?

2. REVIEW OF LITERATURE

2.1. Introduction

Road-based transport in South Africa is an important element for the movement of persons and goods from one place to another and there is a need for efforts towards strengthening the rural transport system in Africa. This requires a more holistic understanding of the mobility and access needs of the rural communities than has traditionally been the case in rural road sub-sector investments. Rural transport is a demand-led, or people-centered approach with an emphasis on the needs expressed by affected communities. It is common cause that LDVs are commonly used to transport people and goods for a fee in Vhembe District.

2.2. Nature and extent of the use of LDVs to transport passengers

Rural transport provides communities with opportunities that enable them to access services and employment as well as maintain essential social networks (Payet, 2010; World Bank, 2010). This is the case despite the fact that in rural areas in Africa transport-related infrastructure is generally poorly developed and maintained because of limited resources (World Bank, 2010). According to the South African Rural Transport Strategy Action Plan of 2007-2010 (Department of Transport, 2007), the variable physical conditions

and limited resources in rural areas invariably necessitate the use of various road transport modes, among which are adapted LDVs. These vehicles can negotiate rough terrain better than most modes of transport. However, in South Africa, use of LDVs as passenger transport is prohibited by law.

2.3. Reasons for using LDVs as a public transport mode

Rural communities face daunting challenges relating to accessing appropriate means of transport and in order to gain access to services, most rural people rely on private cars and pickup trucks (Ericson, 2011). In this regard, it has been noted that LDVs transport a significant number of people and create access for people to social and economic opportunities (Wosiyana, 2005). Because of the characteristically poor road infrastructure and rough terrain in remote rural areas, communities have limited choices of modes of passenger transport and thus turn to other modes of transport provision in order to meet their transport needs (Kekana, 2009).

2.4. Challenges and advantages of using LDVs as a public transport mode

The use of LDVs as a form of public transport in South Africa is associated with formidable challenges. Most notable of these is the fact that existing legislations (National Road Traffic Act 93 of 1996 and National Land Transitional Transport Act 22 of 2000 prohibit the use of LDVs to convey people such as school children and goods for a fee) do not specify LDVs as passenger carrying vehicles for reward. Instead, the legislation classifies LDVs as goods carrying vehicles only. Despite this prohibition, LDVs remain the most popular mode of transport and provide vital rural transport services, where often no minibuses reach, transporting school children and other passengers (Buffalo City Municipality, 2003, Greater Tzaneen Municipality, 2011).

Apart from the legislative prohibitions highlighted above, the use of LDVs as an informal mode of public transport has become a way of life in many rural areas in South Africa, including the pre-dominantly rural Vhembe District Municipality in the Limpopo Province. This transport service particularly occurs in deep-rural areas where conventional modes of transport cannot reach, which explains why this mode of transport is often coined "survival" or "bakkie" taxis (Harris, 2006). The LDVs provide relatively cheaper service compared to conventional buses and taxis. Also, the latter services are also frequently not available in rural areas. Commonly, the operators of the LDVs services carry passengers and goods for a single overall fee. In general, LDVs provide transport on demand and are prepared to pick and drop passengers at their door steps together with their luggage, in accordance with their needs or as requested (Ericson, 2011). All these facts make them a more convenient, increasingly popular means of transport that fills the gap when compared to the conventionally recognized modes of passenger transport.

3. METHODOLOGY

The study employed a triangulation mixed method research design as described by De Vos *et al* (2016). Triangulation is a process of verification that increases validity by incorporating several viewpoints and methods which refer to the combination of two or more theories, data sources, methods or investigators in one study of a single phenomenon to converge on a single construct, and can be employed in both quantitative (validation) and qualitative (inquiry) studies. This means that both qualitative and quantitative data were collected at the same time frame and were given equal weight in order to understand the researched issue.

The research population comprised three sets of research groups: LDV operators (N=100), passengers (N=100) as well as senior members (N=69) of agencies (in) directly involved in transport issues (for example municipal authorities and law enforcement agents) in the respective municipalities in Vhembe District. Because of the informality of the LDV transport service and thus a lack of a clear sampling frame, research participants representing the main target groups, were purposively sampled, using the snowball technique.

4. RESULTS AND DISCUSSION

In general, the data gathered in this study on the passenger transport by LDVs in the Vhembe District Municipality, confirmed in various ways the assumption that this service existed as part of an intricate interplay between the personal characteristics of the individuals using/operating this service and the conditions in the wider environment in which they lived (Greater Tzaneen Municipality, 2011). Moreover, the findings clarified why LDVs have come to be known in various parts of South Africa as "survival taxis" (Buffalo City Municipality, 2003; Harris, 2006).

In particular, the quantitative and qualitative findings showed that LDV passenger transport service was a common, established, regularly operating and sustainable enterprises in Vhembe District Municipality. The mode is common as it can be found not only in rural but also in urban areas, transporting scholars and workers. It is well established as in most areas, they operate alongside with formal transport modes and often act as feeder to formal transport modes (Buffalo City Municipality, 2003). It was also closely interwoven with the infrastructural and material constraints prevailing in the district generally and in remote rural areas in particular.



Figure 1: Nature and extent of the use of LDVs

Regarding the nature of the LDV transport service, the results of this study showed that the service was not a recent practice. For example, in Figure 1, most (55%) of the respondents in the operator survey indicated that they had been operating for between 1 and 5 years and a substantial proportion (24%) indicated that they had been doing so for 6-10 years. However, 15% of the operators have been doing so for less than a year whilst (6%) of the respondents have been operating for more than 10 years. These show that this practice has been in existence for almost ten and more years.



Figure 2: Reasons for trips

Figure 2 shows that many LDV-using respondents indicated that they used LDV transport services mainly to access essential services, namely, to go to school (47%), to travel to the shops (21%), to go to places of work (20%), and to do business (12%). The participants confirmed this point; so also did participants in the qualitative investigations. An interviewee who operated an LDV transport service, for example, stated: "I specialise in carrying school children ... others carry farm workers and civil servants." Regarding the income-generating characteristic of LDV transport, statements such as the following were made: "I started to transport children as there was no other transport ... [The income is] not much but it keeps me going together with my pension"; "I've been carrying school children for a long time ... we cannot allow our family to starve"; "[W]e are trying to make a living"; "LDVs are very cheap and easy to maintain.

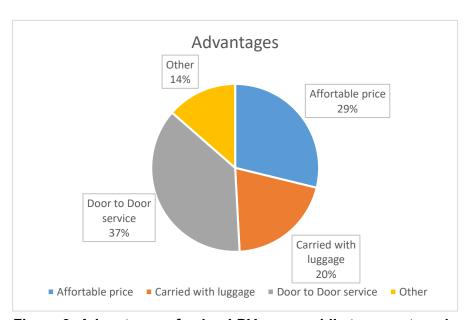


Figure 3: Advantages of using LDVs as a public transport mode

Many of the users of the LDV transport service also indicated that the main advantage of the service was its affordability (29%) and user-friendliness or door-to-door service function (37%), in that it, for example, enabled them to carry their luggage with them (20%). However, (14%) indicated that there are no distinct advantages over other modes – they use LDVs because there are no other public transport modes in their area. Respondents also noted and maintained that:

- LDV transport fees were lower than those of taxis and buses
- LDV operators were prepared to pick them up and drop them at their doors
- The LDV service was also reliable, quick to respond to requests for transport and did not entail waiting in long queues. For example, interviewees stated: "[LDV operators] always carry us with our luggage, though we pay for our luggage, but the price is good; you can be dropped at your door; they arrive on time"; "People use LDVs because they carry anything at affordable fees. LDVs provide a better service than taxis"; "We use LDVs, as they are available, quick; no long queues, [operators] accept luggage, drop at doors".

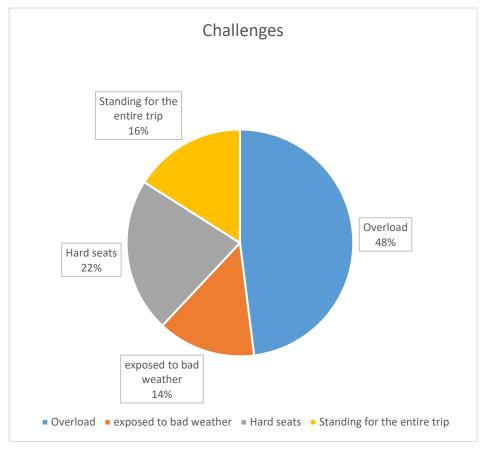


Figure 4: Challenges of using LDVs as a public transport mode

The study, furthermore, showed that the LDV transport service in Vhembe District Municipality was subjected to various challenges. For example:

- Substantial proportions of the users of LDV transport services indicated safety concerns and discomfort as challenges they faced when travelling by LDV.
- Forty-eight percent (48%) of the respondents indicated the tendency of LDV operators to overload the vehicles as the main challenge or difficulty they faced when using the LDV transport service
- 22% indicated the hard seats as their main challenge
- 14% indicated the fact that they were sometimes exposed to natural elements, such as rain and dust as most of the LDVs have no canopies.
- Furthermore (16%) of the respondents indicated that they often stood for the entire trip resulting in some significant discomfort.

On the other hand, the challenges of the LDV transport service operators largely related to parking facilities and harassment by competitors in formal public transport and law enforcers. For example, and regarding the main challenges faced:

- 40% of the participants in the operator survey indicated that they were threatened by legal transport operators, and
- 30% reported that law enforcers harassed them.

Interviewees in the qualitative case study stated: "Operation is complicated by tension between [LDV and taxi operators] ... certain taxi operators [are] scared of losing customers"; "[Law enforcers] try to police [the LDV service] ... but [the] situation [is] out of hand".

5. CONCLUSION AND RECOMMENDATIONS

To conclude, and consistent with the recommendations, the study findings implied that processes directed at formalising the LDV passenger transport service should be approached in a holistic and people-centred manner that focused on the specific and variable needs that the affected communities expressed. Given the general convergence between the data gathered and thus their integrity as well as the comprehensiveness of the questions posed and answered, the findings should provide a solid base for formalising the LDV passenger transport service in Vhembe District Municipality.

The following is therefore recommended:

- A multimodal public transport system in Vhembe District, providing for the use of LDVs alongside other forms of public transport in especially remote rural areas. In such a system, a variety of public transport services could operate together, share public parking facilities, feed into one another, and provide prospective passengers with opportunities to choose the transport mode that suits their needs and pockets.
- Legislative reforms are needed to allow LDVs to be used as passenger-carrying vehicles, with some conditions attached such as canopies, specified seating capacity, proper seats, route permits and other safety-related measures.
- Issuing of operating permits and licences to LDV passenger transport operators constitutes a practical solution. This will enable enforcement agencies to regulate the service and provide LDV operators with opportunities to use public and other facilities and prevent conflict between operators of various transport services, and
- To facilitate the sustainability of LDV passenger transport, operators should be issued with a permit that caters for both pupils and other categories of passengers such as workers.

Finally, the authorities would do well to take cognisance of Banjo et al's (2012) point: "Africa's ... renaissance can be realized only if products [and people] actually get to markets [and other essential services]. Rural infrastructure, particularly roads and transport services ... constrain ... [movement and] incomes ... [p]people who cannot move themselves and their goods cannot pursue economic and social activities. They cannot access schools and health facilities. People who cannot move cannot move out of poverty."

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