

SUPPLY SYSTEM ANALYSIS OF COMMERCIAL PASSENGER TRANSPORT IN METRO MANILA:

Step 1 - Regulation, Market Structure and Operation System of Urban Bus Industry

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Abstract:

The paper describes bus operations in Metro Manila with focus on the regulation, market structure, and operation system. A macroscopic analysis of the industry was initially done and then an intensive interview was undertaken on companies chosen through scale-based sampling. Based on this methodology, it was found out that, productivity and efficiency of urban bus operations are dependent on sizes with several other points raised or discussed on the final section, however, our assessments were based on limited samples and would be further verified as we proceed on our next undertaking.

1. Preface

Traffic problems in Metro-Manila is, though it's at least better than the chaos in Bangkok, attracting the nation-wide attention. But the authors believe that LRT network would not be a super-savior and the naive "deregulation" is not always the magic stick: Comprehensive and scientific understanding on the existing public road transport industries; jeepneys and buses, is urgently required for the better establishment and rational evaluation of the transport policy for the future, especially post take-off epoch.

The final objectives of the whole study program, based on the above-mentioned background, are as following:

- 1) to understand transport supply structure and estimate the cost function of the quantity and the quality of supply by land transport modes
- 2) compare the modes of transport supply
- 3) forecast the supply cost under different economic parameters and assess the market structures of land transport for the future, and
- 4) discuss the required policy on transport industry for the future.

This paper, as the first step of the whole study, would attempt to assess urban bus

operations, by looking deeper into its production structure. We would also try to look into the rationality of the solutions adapted, whether it had really addressed the worsening situation. This was undertaken firstly by the macroscopic survey on the industry from various point of view and secondly by scale-based sampling, the methodology of which was discussed in the preceding sections. Subsequently, the key officials of the bus companies that were chosen were interviewed which was focused on the administration, operations, maintenance and other matters related to the industry.

2. Urban Bus Operations In Metro Manila

2.1 Overview on Urban Bus Operations in Metro Manila

It was in the 1880s that some kind of a public transportation system appear in Manila. The Compañia de los Tranvías de Filipinas in 1885 launched the tranvia¹ on permanent ways. Later, The Manila Electric Railroad & Light Company (MERALCO) purchased the streetcar franchise in 1903 and was subsequently converted into electric rail.

April 11, 1905 saw the full commercial operations of a fully electric tranvia system that resulted to a significant growth of passengers from 10.6 million in 1906 to 35 million in 1926. In 1927, MERALCO introduced the urban passenger bus, the autobus, to Manila to complement the existing tranvia. A disastrous flood in 1943 inflicted irreparable damage to the tranvia system, only 16 out of 109 was left operational. The liberation of Manila in 1945 and other incidents prior to it, destroyed both the tranvia and autobus that ended the urban transportation system in Manila.

In 1946, MERALCO and Halili Transit resumed bus operations by importing 150 and 300 buses, respectively. In the same year, METRAN was established by the government with 100 units. With barely 14 months in operations, METRAN went out of business as well as MERALCO because of stiff competition and incapability of the government to control the numerous bus operators that has joined the industry.

In order to improve bus operations in the metropolitan area, the government created the Metro Manila Transit Corporation in 1974. The consortia concept was also adapted on the same premise but was also a failure because of:

- 1) inadequate fare structure to cover increasing cost
- 2) stiff competition with the jeepneys²
- 3) maintenance at that time were supposed to be undertaken only by government-accredited contractors but the costs being charged continuously siphons out their finances and was thus uneconomical.

The Department of Transportation and Communications was designated through Executive Order 125 as the primary policy, planning, regulating and implementing agency on transportation. Concerning the governmental administration on bus operation, implementation of Public Transportation Regulations, Economic (Franchising) and Safety are being undertaken by Land Transportation Franchising and Regulatory Board and Land Transportation Office, respectively. These two agencies are under the Department of Transportation and

¹ a single horse drawn tramcar with 12 passenger capacity

² Famous paratransit mode in the Philippines having the capacity of 18 to 20 passengers. There are both commercial passenger jeepneys and private passenger/goods jeepneys.

Communications.

2.2 Macroscopic Data Review on Bus Industry

As shown in Table 2.1, jeepneys are keeping predominant transport share of 45 to 55% while buses generally have an approximately 15% share. The rapid growth of private car trips should have somewhat been affecting the public transport.

Table 2.1 Transport Demand by Mode Share

Year	1974	1980	1985	1989
Daily Person Trips, millions	8.33	10.97	13.08	16.30
Mode Shares, %				
Private Vehicle	37.40	25.60	27.50	35.20
Bus	16.40	15.80	15.60	14.60
Jeepney	46.10	58.50	56.50	49.40
Commuter Train	0.10	0.10	-	-
Light Rail	-	-	0.40	0.80
Mode Shares, millions				
Private Vehicle	3.12	2.81	3.60	5.74
Bus	1.37	1.73	2.04	2.38
Jeepney	3.84	6.42	7.39	8.05
Commuter Train	0.01	0.01	-	-
Light Rail	-	-	0.05	0.13

Source: Dept. of Transportation and Communications

In Table 2.2, the significant decline of bus units in 1985 could be attributed to decrease of bus routes³ from 162 to 85 between 1984 and 1992 that might have forced bus operators to either reduce their units or totally pull out from the business because of the competition imposed by the jeepneys. In 1989, the Administration granted the operators clamor to increase and improve their existing fleets and were supported with 1400 bus units under the Bus Importation Program (time frame - 1989 to 1993) on that same year. This endeavor had somewhat influenced the significant increase from 1989 and the succeeding years.

In relation to the jeepney competition, the configuration of Metro Manila road networks, the intermediate size or capacities of the jeepney as well as its capability to provide an almost door-to-door delivery to its passengers spelled the success of its (jeepney) operations. However, instead of being supportive, the competition resulted to gradual pull-out of private bus operations in affected areas. Nevertheless, MMTC, still operates in some of those areas because of its mandate to provide transport service in undeveloped and or unprofitable routes.

³ Metro Manila Bus and Jeepney Route Descriptions, Road Transport Planning Division, DOTC; May 1992

The Light Rail Transit along Taft and Rizal Avenue started operations in 1985 but considering its low mode share, its impact on the bus industry is quite negligible.

Table 2.2 Metro Manila Bus Operators/Units

Year	Total Number of Operators	Authorized Unit (Urban & Sub-urban)
1982	219	2,500
1983	136	2,510
1984	150	2,435
1985	118	1,988
1987	145	1,819
1988	219	1,872
1989	596	4,172
1990	450	5,400
1991	776	6,454
1992	776	6,454

*1st Quarter Data only

Source: Land Transportation Franchising and Regulatory Board

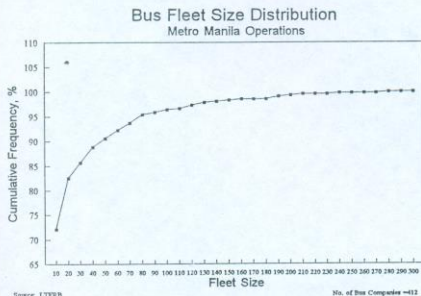
2.3 Scale and Market Share of Operators

Urban bus passengers in Metro Manila are carried by approximately 412 bus companies. The industry is dominated by 373 small companies having just less than 50 bus units with approximately ninety five (90%) percent share in the number of companies. Further breakdown of small companies are as follows:

- 1) less than 10 units : 61%
- 2) between 10 and 25 : 22%
- 3) between 25 and 50 : 7%

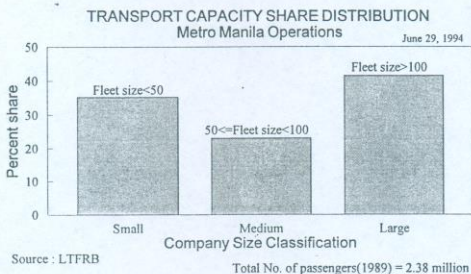
On the other hand, 15 large companies having more than 100 units have four (4%) percent share.

Fig 2.1. Distribution of Operator's Scale



But on the other hand, these 4% large operators occupies more than 40% of whole number of vehicles, while large number of small operators are still struggling among themselves in the market: If the number of vehicles could represent the transport volume, that is, if we can assume that the running kilometers and the loading factor of buses are the same in all buses, it can be concluded that the market is of "Giants and Ants". From these figures it can be said that urban bus market is not the one often commonly said as "small" operators market like "complete competitive market".

Fig 2.2 Operator's Scale and Market Occupation



2.4 Regulations and Policies on Urban Bus Operations

2.4.1 Regulations on Franchising⁴

The regulatory and franchising functions of the government regarding public land transportation dates back on the early 1900s. Today, this is now being carried out by LTRFB which was created through Executive Order No. 202 on 19 June 1987. The Board was mandated to rationalize, regulate, and supervise all motorized land-based public transportation services by establishing and sustaining a nation-wide land-based public transportation program that will enhance the promotion and maintenance of legitimate, adequate, safe, convenient and dependable land transportation services at reasonable rates. Before an operator can provide public transport services, he must obtain a Certificate of Public Convenience (CPC) from the LTRFB as required. A prospective public transport operator should submit as provided under Public Service Act 146;

- 1) the applicant must be a citizen of the Philippines, or a corporation or co-partnership, association or joint-stock company constituted and organized under the laws of the Philippines, 60 percent at least of the stock or paid-up capital of which belongs entirely to citizens of the Philippines.
- 2) the applicant must be financially capable of undertaking the proposed service and meeting the responsibilities incident to its operation and,
- 3) the applicant must prove that the operation of the public service proposed and the

⁴ The LTRFB Briefing Kit, Land Transportation Franchising and Regulatory Board

authorization to do business will promote the public interest in a proper and suitable manner.

The issuance of a CPC is determined by a presumed public need and shall be deemed in favor of the applicant. The oppositors or the existing operators will be having the burden of proving that the proposed service is not indeed needed. In which case, a hearing is held and the Board sits as the judge to decide the case. An approved CPC has a validity of up to five (5) years, but in abeyance for its approval a Provisionary Authority (PA) is usually issued and is normally valid for one year. The whole process, from initial filing to issuance of CPC, takes for at least a period of sixty (60) days. LTFRB issued a circular that a Vehicle Inspection (VIR) be required before any franchise is release. This will ensure that vehicles are checked for any deficiency or roadworthiness.

The regulations of land-based transportation is very comprehensive, but the question is whether it was really being done so as to attain a balanced and efficient public transportation. Historical incidents indicates that, even before, "the more-the merrier concept" now known as "deregulation" was already being practiced, but the scheme, has not done any wonder in solving our worsening traffic problems. Vehicles' roadworthiness, one of the preconditions before the issuance of a franchise should not be confined to mechanical efficiency but should be well-maintained as well.

2.4.2 The Rate or Fare System

Before, the fare system for urban bus operation was completely determined by the government but on 30 March 1992, the Department of Transportation and Communications issued Order No. 92-587 defining the policies on the regulation of transport services, wherein one of the policies concerned is liberalization/deregulation. The policy is aim to enhance competition and improvement of the quality of service being offered by transport operators and was expected to benefit the riding public.

The fare system for aircon buses were somewhat deregulated by the government and as a result, rates are now regulated to be not less than P4.50 for the first four (4) kilometer. However, most of the bus companies charge P5.00 for the same coverage while Metro Manila Transit charges P10.00 for trips within the first zone (more than 4 kilometers). The incremental fare for the succeeding kilometers or zones can then be freely set by the operators. Although the fares have been somewhat deregulated, these can not be provisionally authorized without prior notice and public hearing.

For the ordinary (non-aircon) urban bus operation, the fare system has also been somewhat liberalized. Operators may fix their own fares within a range 15% above and below the indicative or reference rate (refer to Table 2.4 below), which is the prevailing fare rate since 1990. Even with this guideline, no marked changes in the fares being charged by the ordinary bus operators have been observed.

It could also be noted that on 11 March 1985 and 26 January 1986, before the ouster of the then Marcos administration the fares for both ordinary buses and jeepneys were lowered and were further reduced with the assumption of the succeeding Aquino administration. The variation of rates could be partly attributed to fuel price fluctuations and other economic policies, one example is the Oil Price Stabilization Fund (to offset world oil price fluctuations).

Table 2.4 Fares For Metro Manila Ordinary Bus and Jeepneys

Effectivity Date	Class	1st 4 km	Per Succeeding Km
1974 Feb 14	Ordinary bus/jeepney	0.20	0.040
1976 May 05	OB/JP	0.25	0.050
1977 Apr 21	OB/JP	0.300	0.065
1979 Mar 24	OB/JP	0.500	0.095
1980 Feb 22	OB/JP	0.600	0.115
1980 Aug 19	OB/JP	0.650	0.135
1981 Mar 26	OB JP	0.650 0.650	0.140 0.130
1983 July	OB JP	0.650 0.700	0.165 0.165
1983 Nov 07	OB JP	0.800 0.850	0.210 0.210
1984 May 28	OB/JP	0.900	0.220
1984 June 11	OB/JP	1.000	0.260
1984 Oct 25	OB/J	1.200	0.305
1985 Jan 28	OB/JP	1.100	0.295
1985 Mar 11	OB/JP	1.000	0.285
1986 Jan 26	OB/JP	0.950	0.270
1986 Mar 22	OB/JP	0.900	0.250
1987 Sept 14	OB/JP	1.000	0.270
1988 Aug 23	OB/JP	1.000	0.270
1988 Nov 14	OB JP	0.750 0.750	0.250 0.240
1989 Dec 04	OB JP	1.000 1.000	0.315 0.300
1990 Sept 25	OB JP	1.250 1.250	0.370 0.355
1990 Dec 08 to present	OB JP	1.500 1.500	0.415 0.370

Source: Department of Transportation and Communications

2.4.3 Policies Related to Procurement of Second Hand Buses⁵

Executive Order No. 354 authorizing the importation of second hand passenger buses was issued on March 29, 1989. An Inter Agency Committee on Used- Trucks and Engines, in coordination with other government agencies/private institutions, had decided to "reopen" the Bus Importation Program later known as Bus Installment Procurement Program (BIPP) to beef up the number of public utility buses in Metro Manila.

Second hand or used buses here refers to used completely built-up (CBU) passenger

⁵ BIPP Guidelines, Metro Manila Transit Corporation

buses with rated gross vehicle weight (GVW) greater than 12 tons, of models of not more than 10 years. Importation of second hand buses was started in 1989 with 1400 units as part of the projected total initial units of 3,500. The proposed target was as follows;

Table 2.5 Proposed Projected Number of Buses to be Added/ Year

Year	New	Used	Re-hab*	Total
1989	500	200	500	1,200
1990	700	200	100	1,000
1991	700	200	100	1,000
TOTAL	1,900	600	700	3,200

* brand new engine will be imported to re-power old buses

Under the program, the Metro Manila Transit Corporation was tasked to manage its implementation. The Corporation shall purchase the above cited buses and offer them for Installment- Purchase to qualified operators on a tax-free basis.

Only qualified true franchise holders of public transport buses duly registered with the LTRFB were allowed to participate but was limited to a certain number of used bus units authorized by the Board. The qualifications were the following;

- 1) Corporations with a minimum paid-up capital equal to twenty (20%) percent of the cost for brand new units multiplied by the total number of units to be availed or thirty percent of the for used units. Ten (10) percent would be paid on new units; twenty (20) percent would be for used units while the other ten (10) percent would be for operating expenses and investment in facilities.
- 2) Corporations which can provide bus depot with complete maintenance and repair facilities (excluding those for major overhauling and body works), adequate number of trained personnel and an experience general manager or chief operating officer which would be based on MMTC standards or judgement.
- 3) Corporations whose members of the Board of Directors and key operating officers are of good credit standing. Those with unpaid accounts or have unsatisfactory records are not eligible.

On 31 January 1994 an Amendment to the Guidelines for the Importation of Used Trucks and Buses was issued disregarding the criteria on year model provided that a Certificate of Road Worthiness and a Certificate of Compliance to Emission Standards, was issued from the country of origin stating the unit's acceptability or suitability.

2.4.4 Series of Policies on Metro Manila Transit Corporation⁶

On 27 June 1974, Presidential Decree No. 492 brought about the creation of the Metro Manila Transit Corporation (MMTC) with the purpose of providing an efficient and cheap mode of transportation which was one of the eleven basic needs to be provided by the former Metro Manila Commission (now Metro Manila Authority). The eleven basic needs to be provided were water, power, shelter, livelihood, food, health and sanitation, ecology, sports and recreation, education and culture, peace and order, and mobility.

⁶ Metro Manila Transit Corporation Annual Report; 1983

Operations began on 12 May 1975 when the first batch of the program - 700 buses and 250 taxicabs were delivered and put to the road. Aside from augmenting the existing transport system, MMTC also generates employment among the Filipino people, and is also instrumental in developing new bus lines within and outside Metro Manila. The latter is the main reason why no franchise is required for their operations. Apart from them, the Corporation also provides its services in calamity-stricken areas and in some cases, buses have to be readily available for the use of politicians during election period.

In trying to fulfill the government's mandate of providing the commuting public with an adequate and responsive land transportation service, the Corporation absorbed enormous and alarming losses prompting the corporate officers to implement Early Retirement Program on February 1989. The scheme was then widely encouraged by the national government to cut down expenses. MMTC's workforce was trimmed from 2,574 down to 1,075 that would be further reduced by retrenchment into a target of 900 to 950 personnel which was exceeded for as of June 30, 1994 the total workforce is now 842. Another administrative solution being considered to bail out the company in the near future is through asset disposal, wherein all the bus units are to be disposed of to private companies. In this set-up, the MMTC will be acting as a mere credit-financing institution for private bus operators. After divesting MMTC with all its physical assets, what can be allowed to remain is a shell company which will act as a bridge to facilitate the acquisition of new buses by the existing operators.

3. Comparative Assessment on Scale-based Samples of Operators

3.1 Selection and Outline of Samples

3.1.1 Sampling Procedure

With limited available data, scale-based sample selection of respondents will be undertaken for our foregoing further systematic survey. Bus companies with their corresponding fleet size were ranked in a descending order after which, the scale was divided into:

- 1) large - fleet size of more than 100 units
- 2) medium - fleet size between 50 and 100 units
- 3) small - fleet size less than 50 units

And as a pilot survey in this paper, one sample from each category, in addition to Metro Manila Transit Corporation, was chosen and intensively interviewed for the first step study.

3.1.2 Outline of Samples

Following Table 3.1 shows the basic outline of each samples.

Table 3.1 Company with Fleet and Personnel Size

Company	Fleet Size	Number of Personnel	Total Route Length*(Kms)	Estimated Daily** Vehicle Kilometer
MMTC	373	842	Unknown	Unknown
A -Large	118	600	55.2	14,894
B -Med.	68	300	51.1	9,965
C -Small	31	45	66.3	1,082***

*Source: The Metro Manila Transportation Planning Study, March 1984

** Or Operation Efficiency Indices estimated by authors

*** This number is possibly somewhat underestimated (look at note at Table 3.5)

The preceding Table 3.2 and Figures 3.1, 3.2, 3.3, and 3.4 serves as a background of the different companies in consideration.

Table 3.2 Service Condition

Company	Route	Route Length	Daily Operating Hours	Daily Turn Around Per Unit	Comfortability
MMTC		Operations can be in any area (no franchise)	16	Unknown	Aircon buses Ordinary
A	1 2	30.1 25.1	20	2.5 2.6	Aircon Ordinary
B	1 2	32.5 18.6	19	3 3	Ordinary
C	1 2 3	25.1 8.6 32.6	14	2.5 4 2	Aircon

3.2 Comparative Assessment

3.2.1 General Administrative System

As shown in Table 3.3, bus crews of Companies B & C have dominant share in the number of personnel of 76% and 70% respectively reflecting the smaller share of supporting personnel to operation, while MMTC reflects relatively same percentage share in comparison with a privately owned large company A. Concerning the technical crew share, Operator A manifested the largest share allocation because of their policy on preventive and daily maintenance (the heart of their operations), that is, scheduling of 2 units daily for preventive

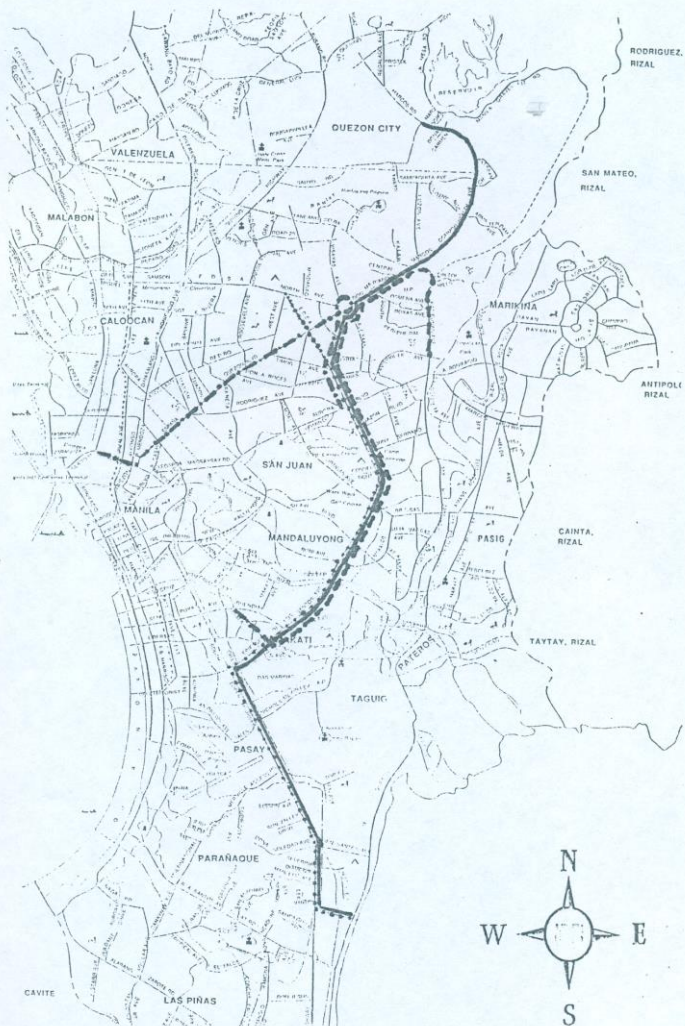


Fig. 3.1
 Metro Manila Transit Corporation Route
 (Origin and Destination)



Fig. 3.2
 Company A Bus Route
 (Origin and Destination)
 Total Route Length: 55.2 Kms



Fig. 3.3
 Company B Bus Route
 (Origin and Destination)
 Total Route Length: 51.1 Kms



Fig. 3.4
 Company C Bus Route
 (Origin and Destination)
 Total Route Length: 66.3 Kms

maintenance except for Wednesday and buses with damages although minor ones should not be fielded for operations. These undertakings are in line with their goal of achieving a well-maintained and safe fleet operations.

Table 3.3 Personnel Structure

Company	Total Personnel	Bus Crews (% Total)	Maintenance (% Total)	Administration (% Total)	Veh-Km per Personnel	Avail. Units per Personnel
MMTC	842	427 (51%)	168 (20%)	247 (29%)	Unknown	0.24
A	600	311 (52%)	142 (24%)	247 (29%)	24.8	0.18
B	300	228 (76%)	40 (13%)	32 (11%)	33.2	0.22
C	43	30 (70%)	8 (19%)	5 (11%)	25.2	0.23

3.2.2 Fleet/Crew Operation System

Table 3.4 below shows the crew unit scheduling and compensation systems as well bus crew allocation and estimated productivity of the different companies chosen. All the private operators crew scheduling systems employs the same concept but it is important to note here that Operator A's concept is that their driver is "married" to his unit, that is, he is responsible for the (unit's) daily upkeep or cleaning. This concept is worth considering here because the units of this particular company are really well-maintained. Considering the reward system, B offers greater percentages of commission than A as shown, but the crews of A, demonstrates a higher productivity, represented by vehicle-kilometers per crew number, output than B. Concerning bus crew allocation, Operator B has the highest maximum number of crew assigned to a unit as noted in Table 3.4, and using it as a basis, B is showing a maximum utilization of available fleet. On the other hand, MMTC has an average of 1.14 bus crews for a unit, its reward system is also different from any private company which might possibly caused MMTC crews not to struggle for passengers at boarding and alighting areas considering that they are receiving a monthly salary and possibly incentives. With the presence of so many private operators, this might possibly hurt MMTC financially.

Table 3.4 Bus Crews Scheduling, Compensation and Productivity

Company	Driver	Conductor	Bus and Crew Scheduling	Commission, % of Gross Revenue of each Bus Operator	Bus Crew Per Unit	Veh-Km per Bus Crew	Veh-Km per Avail. Unit
MMTC	241	186	Fixed-pair to fixed unit	Aircon Buses- Drive: Sal + 7% Cond: Sal + 5.5% Ordinary Buses- Drive: Sal + 6% Cond: Sal + 5.5%	1.14	Unknown	Unknown
A	154	157	Fixed driver to unit First-in first-out-conductor	8% - Drivers 6% - Conductor	2.64	47.9	140
B	108	120	Fixed Driver to a unit First-in first-out conductor	12% - Drivers 8% - Conductors	3.35	43.7	153
C	15	15	Fixed driver to unit First-in first-out conductor	8% - Old- 7% New 6% - Old- 5% New Condr.	0.97	36.1	108

* Fixed Monthly Salary for MMTC based on Salary grades specified under The Salary Standardization Law for state and government-owned or controlled corporation employees.

** Incentives in the form of commission are given only when the daily gross revenue exceeds P3,500.00.

3.2.3 Vehicle Maintenance System and Quality

Table 3.5 below shows statistics on operational and daily available units whose quantities (availability) could be assessed by analyzing the allocation of technical personnel. Operator B shows a very high average availability as well as Operator A, but it is assessed that the units of A could be somewhat more well-maintained considering the difference of A and B in the average number of mechanics assigned to each unit. Moreover, one part of mechanics of B are for manufacturing (refer to Table 3.6). Concerning the breakdown statistics obtained, as a safety or dependability indicator, A is quite reliable than B while, the same thing could not be assessed on MMTC and C.

Considering their maintenance depots in terms of system and order, A is the most organized. C a small company maintains an enclosed area as a depot without any protection from bad weather conditions. MMTC depot on the other hand, was observed to be quite disorganized, that is, used materials are literally over the area.

Table 3.5 Vehicle Maintenance and Availability

Company	Operational Unit	Ave. Daily & (%) Availability	Number of Mechanics	Mechanic/s Per unit	Daily Breakdown
MMTC	373	200 (54%)	168	0.45	3 to 5
A	118	106 (90%)	142	1.2	1
B	68	65 (95%)	40	0.59	1
C	31	10* (32%)	8	0.25	2 to 3

*Daily available is usually much more than reported but unutilized due to inadequate bus crews.

3.2.4 Procurement or Manufacturing System of Vehicles

Utilizing different mechanism as shown in Table 3.6, both A and B are into bus manufacturing but as discussed in the previous section, Operator B's vehicular condition is at stake considering they utilizes their own facilities and manpower while Operator C contracts outsiders to do the job, which is in consistency with their goal to achieve an efficient, well-maintained and reliable operations.

Table 3.6 Bus Acquisition

Company	New Bus	Second-hand Bus	Rehabilitation (Body Repair)	Manufacturing (Bodybuilding)
MMTC	yes	none	By Contractors Outside	None
A	yes	none	By Contractors Outside	Materials, finances shouldered except labor w/c is should contractors
B	yes	yes (BIPP)	By Own Staff and Facilities	16 units Annually Cost : P 500-600,000/unit
C	none	all units	By Contractors Outside	None

4. Discussion and Conclusions

The market structure of bus operations in Metro Manila was likened to as of "Giants and Ants", that is, large companies having more than 100 units with four (4%) percent share in the number of companies controls forty (40%) percent of the total number of vehicles as well as an estimated forty eight (41%) percent share of bus passengers, while companies having less than 100 units with 96% share in the number of companies controls the other sixty (60%) percent of the total number of vehicles. However, the bus mode share which is approximately fifteen (15%) percent based on daily person trips is slightly declining relatively because of overcrowding of different transport vehicles and the competition among public transport modes especially the jeepneys. This competition has somewhat affected the bus industry that resulted to shorter route length at an average of twenty (20) kilometers and the likely concentration of operations along or in some portions of Epifanio delos Santos Avenue.

A comparatively free franchising policy of the government was also observed, free in the sense that, the quality control and enforcement being done by the Motor Vehicle Inspection Section and the Land Transportation Office is insufficient and inadequate, as well as the concept of liberalization which was being implemented by the Land Transportation Franchising and Regulatory Board to enhance competition was not realized but it had somehow resulted into overcrowding.

Concerning the partial deregulations of fares of air-con buses covering the first 4 kilometer, a significant difference among companies can be observed, while for ordinary buses, the fare system was also liberalized based on an indicative fare range which is plus or minus 15% of the prevailing rates, however no marked changes has been observed.

These policies of the government which are somewhat inconsistent has somehow affected the bus industry considering its fluctuating number of fleets. The importation of second hand buses was also adapted to beef up the then dwindling fleets but has undergone a considerable change (disregarding the model year of imported bus units) which is somewhat not beneficial to the existing poor quality of the majority of bus fleets. The Metro Manila Transit Corporation as another example, was created for public service, that is to provide an efficient and viable mode of transportation but is now being considered to be privatized. Moreover, these policies has not done a wonderful job of alleviating our transport problems but it has all the more somewhat added to congestion. With the present situation, buses with only 20 km-average route length could only make a daily turn around of 2 to 3 times with an approximately 19 hours of operations.

Concerning the structure of the bus industry, the allocation for crews was estimated to be in the range of 70% to 50% with smaller companies having a larger percentage for that particular workforce. Likewise, the compensation or commission system for private companies is incentive oriented which might be lesser for smaller companies that in the end makes their bus crews more productive, while on the other hand, MMTC rewards its bus crews with a fix monthly salary and a corresponding incentive that might result to less productive crews which is not beneficial to the corporation considering its financial situation now. Large companies likewise gives emphasis on technical crews, they are assigning a greater number of mechanics to each one of their unit to maintain a quite high and perhaps well-maintained available units, but the same thing can't be said of MMTC, which is also large, because of its significantly low and a kind of ill-maintained, aging available units. The rationale behind it maybe, is that (large) the company has a reputation to protect and must be adhered to even without government preconditions or requirements, however this may

result to a productivity that is not always better as compared to smaller companies.

So, based on the observations above, we could say that government organization has a lousy management and that public transportation should be undertaken by private organizations.

Larger companies are more efficient in terms of the quality of maintenance and operations that would mean a reduced occurrence of accidents and pollution.

The productivity of smaller companies is based on worse maintenance and that they have been surviving in Metro Manila because of the laxity of the government on enforcing technical and regulatory controls.

To achieve a better quality of urban public transportation the government must strictly implement technical control but then small companies would not be able to survive unless they would resort into merging, acquisition or market concentration, however, care must be observe in adopting any of these strategy so it would not result to a "monopoly".

But then considering our limitations, our study should be further done extensively to verify our conclusions...

5. **Acknowledgment**

The authors wish to acknowledge the support and cooperation that was extended by the officials and employees of:

Department of Transportation and Communications
Land Transportation Franchising and Regulatory Board
Bus Companies concerned as well as
NCTS Graduate Students and Staff.

6. **References**

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- 2) Morichi, Shigeru, "A Comparative Study on the Transportation Policies in Bangkok and in Metro Manila", A Paper Presented Before The First Annual TSSP Conference, Manila; July 1993

Appendix 1 Metro Manila Transit Corporation Statistics

Organization

The affairs of the Corporation are governed, directed and controlled by a Board of Directors, the highest policy-making body in the Corporation. The activities of the Corporation are supervised by the President with the assistance of the General Manager who manages daily operations, and implements the decisions and policies promulgated by the Board of Directors.

The MMTC used to operate several modes of land transport. By maintaining a multi-modal system of operations, the MMTC was able to satisfy the needs of the different classes of passengers. Among them are:

- 1) Ordinary
- 2) Love Bus
- 3) Double Decker
- 4) Pag-ibig
- 5) Express
- 6) Zone Run
- 7) Airport Shuttle

So far, only the ordinary and the air-conditioned services are left in operation because of massive losses incurred by the corporation.

The Corporation ventured into taxi operations in 1975, as an answer to a public demand for a safe, honest and satisfactory service.

This was however gradually curtailed after the full acquisition of the programmed number of units in the project.

Administration and Finance

Several factors contributed to the dwindling profitability of the Corporation: dollar payments and interests of bus acquisition have escalated due to peso devaluation; rising cost and unavailability of spare parts; aging of the bus units that resulted to frequent mechanical troubles, government-controlled fares; competition imposed by jeepney operations and mismanagement. In addition, increasing prices of new bus units have also affected the acquisition of additional fleets.

Numerous strategies were undertaken to sustain their growth and ensure their survival; reorganization, and rehabilitation. Incentives were given to bus crews, commissions of 5% and 7% of their corresponding gross revenue for ordinary and Love Buses respectively, in addition to their fixed monthly salaries. This is much higher as compared to private bus crews who receive only commissions from their gross revenue.

Financial records shows the Corporation incurs tremendous losses. Early Retirement Program was implemented to somehow minimize the impact. More than half of the employees availed of the program, reducing the number of personnel from 2,574 to 1,075. Still, a retrenchment program is being planned to further reduce the personnel to a target number of 900 to 950 personnel.

Another administrative solution to bail out the company is through asset disposal. All bus units are to be disposed of to private entities, or simply privatization. In this set-up, the MMTC will act as a mere credit-financing institutions for private bus operators. After divesting the MMTC with all its physical assets, what can be allowed to remain is a shell company which will act as a bridge to facilitate the acquisition of new buses by the existing operators.

FINANCIAL STATISTICS

	1993*	1992	1991	1990
REVENUE	214,145	282,804	286,033	259,162
DIRECT EXPENSES				
Fuel & Oil		66,989	69,036	58,459
Repairs & Maintenance		80,303	64,578	61,799
Salaries & Wages		94,333	85,179	65,733
Depreciation		47,708	49,417	43,498
Tires & Tubes		14,333	8,347	9,316
Common Carrier's Tax (CCT)		8,484	8,584	7,777
Batteries		2,008	1,967	1,759
Tickets		1,031	1,094	1,045
Other road expenses		1,249	486	1,656
TOTAL DIRECT EXPENSES	246,939	316,438	288,688	251,042
GROSS PROFIT	(32,794)	(33,634)	(2,655)	8,120
INDIRECT EXPENSES	65,289	83,463	66,374	45,542
NET PROFIT(LOSS)				
from OPERATION	(98,083)	(117,097)	(69,029)	(37,422)
OTHER INCOME	(24,512)	69,750	(46,859)	55,349
NET PROFIT				
/LOSS FOR THE YEAR	(122,595)	(47,347)	(115,888)	17,927

*up to September only

Source: MIS, DOTC

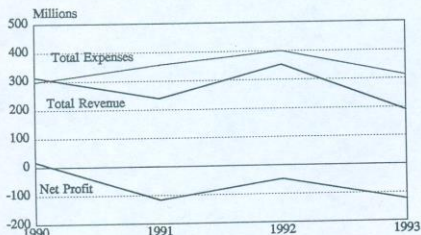


Figure 1 Financial Condition

Revenue

The highest gross revenue during the period of 1990-1993 was generated in 1991. This may be due to the introduction of new bus fleets and the increase of average bus runs.

Expenses

There is a marked increase of expenses (direct and indirect) incurred during 1990-1992. A similar trend was observed at the end of September 1993. This may be attributable to the continuous spiraling of prices of fuel, parts, tires and batteries, materials and other commodities plus the decrease in fuel efficiency which normally goes with the aging of the bus units.

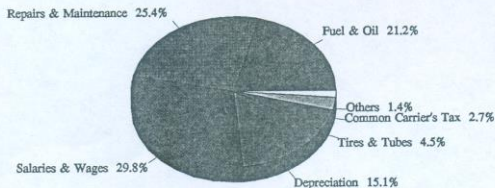


Figure 2 Direct Expenses for 1992

Direct expenses are the area in which MMTC has had to spend heavily. In 1992, salaries and wages eat up most of the direct expenses accounting for 29.8%. Repairs and maintenance followed with 25.4% while fuel and oil comes next with 21.2%. It is interesting to note that MMTC is not exempted from the common carrier's tax, even though it is a government-owned company.

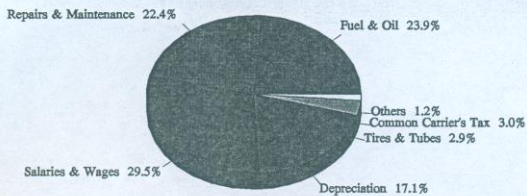


Figure 3 Direct Expenses for 1991

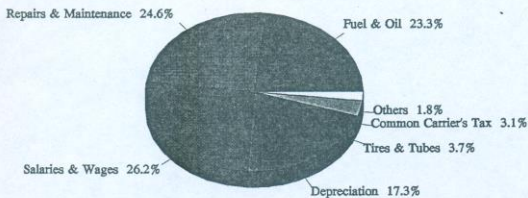


Figure 4 Direct Expenses for 1990

V. OPERATIONS

Although they were able to reduce their personnel costs through their retirement program, their operations were greatly affected because most of the employees who availed of the program were the more experienced crews and mechanics. Low salaries and brighter opportunities in private companies here and abroad forced them to do so.

Another setback regarding their operations were some strikes done by the MMTC labor unions. These labor groups, being employees of a government corporation engaged in public utility service, are not allowed to stage strikes and are instead covered by Civil Service Laws. The common tactic employed by the strikers are to barricade the gates of the MMTC to prevent buses from getting out, thus paralyzing its regular operations.

Notwithstanding all the factors against the corporation, they manage to operate today a daily average of two hundred units which is 60% to 70% of the total operational units. Each unit is manned by a fixed bus crew pair composed of a driver and a conductor, usually a woman. This operational policy is proven to ensure work efficiency and productivity. The bus crews of MMTC are distinguishable by their blue uniforms which are unlike some other bus companies.

OPERATING PERFORMANCE

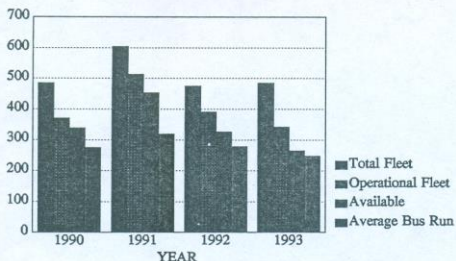


Figure 5 Fleet Data for the period 1990-Sept 1993

Fleet Data

In 1993, of the total fleet of 485 buses, 247 units on the average were run during the

end of the third quarter of the year. In 1992, an average of 278 bus runs were registered out of the 475 total fleet. These figures were actually a reduction as compared to the 1991 data. Fleet data increased in 1991 because of the importation of brand new buses.

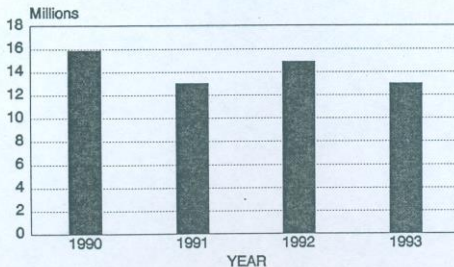


Figure 6 Total Kilometers Run

Kilometers Run

The 1990 data shows the highest total kilometers run of 15,840,000 km despite a low average bus run of only 274. This is because more units were fielded in routes with longer stretch.

OPERATING STATISTICS

	1993*	1992	1991	1990
Total Fleet	485	475	604	484
Operational	341	390	513	370
Available	264	325	453	338
Ave. Bus Run	247	278	318	274
Ave. Seating Capacity				57
Total Kms. Run (000)	12,975	14,869	13,017	15,840
Ave Km run/bus/day				163
Fleet Efficiency	71	86	70	77
Load Factor (%)	64	76	72	83
Fare/km				0.35

*up to September only

Source: MIS, DOTC