

CHARACTERISTICS OF SERVICES AND USERS OF JAKARTA-BANDUNG MINIBUS (CASE STUDY OF X-TRANS TRAVEL)

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Abstract

After the opening of Cipularang (Cikampek-Purwakarta-Padalarang) toll road in 2005 trips between Jakarta Bandung vv using road based transport increase significantly. Previously rail based transport was more popular to connect Jakarta and Bandung. However shorter travel time through the toll road encourages mode shift to road based transport, not only to private transport but also to scheduled minibuses and buses services. Nowadays the competition between scheduled minibus companies is quite tight. This is beneficial for the users in terms of wide choice of origin and destination in Jakarta and in Bandung. Competition between providers also maintains the price of the services to be reasonable. Some of the providers even diversified their services into door to door services both for passengers and parcels. One of the largest company providing Jakarta-Bandung vv service is X-Trans. This paper will discuss characteristics of X-Trans Jakarta-Bandung minibus service. The characteristics of X-Trans users will also be discussed.

Key words: road based transport, rail based transport, scheduled minibus, Jakarta-Bandung, Cipularang

INTRODUCTION

To commemorate 50 years of Asia-Africa Conference, on April 2005, an Asian-African Summit was held in Bandung. This summit was attended by many Asian and African leaders. In order to more easily transport those leaders between Jakarta and Bandung vv, a new toll road connecting Cikampek-Purwakarta-Padalarang (Cipularang) was built and the soft opening of this toll road was just few days before the summit. Afterwards trips between Jakarta Bandung vv using road based transport increase significantly. Previously rail based transport was more popular to connect Jakarta and Bandung, i.e. Parahyangan Train (consists of combination of business class and executive class cars) and Argo Gede Train (consists of executive cars only). However, starting from 27 April 2010, Parahyangan Train service was ended and the cars and the locomotives were transferred to serve Bandung-Malang vv route. Parahyangan Train service cut was due to inability to compete with road based transport due shorter travel time through the toll road. The mode shift to road based transport was not only to private transport but also to scheduled minibuses and buses services. Nowadays the competition between scheduled minibus companies is quite tight. This is beneficial for the users in terms of wide choice of origin and destination in Jakarta and in Bandung. Competition between providers also maintains the price of the services to be reasonable. Some of the providers even diversified their services into door to door services both for passengers and parcels. One of the largest company providing Jakarta-Bandung vv service is X-Trans. This paper will discuss characteristics of X-Trans Jakarta-Bandung minibus service. The characteristics of X-Trans users will also be discussed.

MINIBUS SERVICES BETWEEN JAKARTA AND BANDUNG

There were several companies conducting scheduled minibus services between Jakarta and Bandung, e.g. X-Trans, Cititrans, Daytrans, Baraya Travel, Bimo Trans, Cipaganti Travel, Transporter etc. In terms of origin and destination, schedule and type of services each travel has its own target market (X-Trans in Figure 1, Transporter in Figure 2 and Bimo Trans in Figure 3).



Figure 1 Scope of X-Trans Minibus Service

In Figure 1 it can be seen that in Jabodetabek, X-Trans provides various departure/ arrival points in almost all of major business/ residential areas. In Bandung, however they concentrate their service points mostly in Cihampelas Area. Regarding the schedule, depending on their potential demand, their service is in every 1 to 2 hours. Moreover in their head office in Blora the service is in every half an hour. These are perhaps the main reasons

for shifting from train to scheduled mini buses, i.e. the distribution of service points and the frequent schedule. In Blora point, they also provide medium buses to carry passengers if there is a long queue. X-Trans also provide drop-off service, parcel service, etc.

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 JAKARTA-PANTAI INDAH KAPUK
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- RM Solo Ayam Bangkong Buah Batu (samping Bank Mandiri Buah Batu)
Jl. Buah Batu No.270 Bandung
Reservasi : 022.9152 5060

Harga Tiket :

Weekdays (Senin-Jum'at)
Dewasa Rp. 200.000,-/orang
Anak-anak (2-12 th) Rp. 170.000,-/anak
Family (2 dewasa & 2 anak) Rp. 800.000,-

Weekend & Hari Libur
Dewasa Rp. 250.000,-/orang
Anak-anak (2-12 th) Rp. 200.000,-/anak
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 - Dilengkapi GPS Navigator
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Berangkat dari Bandung pukul 09.00 wib
Kembali ke Bandung pukul 20.00 wib
minimal 5 penumpang

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call : 022.2043 803
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JADWAL KEBERANGKATAN		
JADWAL KEBERANGKATAN ROUTE LAIN		
Berlaku per 7 Mei 2008		
JURUSAN : BANDUNG - KOMDAK - SCBD - CASAIBLANCA, PP		
Dari BUAH BATU	Dari CIHAMPelas	Dari SUMBER SARI
05.00, 06.00, 07.00 08.00 09.00, 10.00, 11.00, 12.00 13.00, 14.00, 15.00, 16.00 17.00, 18.00, 19.00, 20.00	05.20, 07.30, 09.30, 11.30, 13.30, 15.30, 17.30, 19.30	06.30, 08.40, 10.40 12.40, 14.40, 16.40 18.40, 20.40
Dari JKT - CASAIBLANCA		
Dari JKT - SCBD		
05.00, 06.30, 08.20, 10.20 12.20, 14.15, 16.40, 18.45	05.15, 07.00, 09.00 11.00, 13.00, 15.00, 17.30, 19.30	KUMPULKAN 10 TIKET TRANSPORTER dan DAPATKAN DISIKON MENARIK
Pkl. 20.45 Khusus Jum'at Malam, Long Weekend atau Minggu Malam		
Pkl. 21.30 Khusus Jum'at Malam Long Weekend atau Minggu Malam		
Route : Tol Dalam Kota - Keluar Gb. Tol Semanggi - Komodak (Polisi Metro) - Halte Busway Polisi Metro - Gedung BEJ - Gedung Butik Ponsel, SCBD/Sudirman (Drop Point) - Jl. Jend. Sudirman (Plaza Semanggi/Benhil) - Wisma Dharmala - RM Waroeng Starlo, Jl. Dr. Satrio No. 275 Karet Kuningan - Casablanca, Jaksel (Final Point)		
JURUSAN : BANDUNG - SLIPI - CITRALAND - GROGOL, PP		
Dari BUAH BATU	Dari SUMBER SARI	Dari JKT - GROGOL
05.30 07.30 09.30 14.30 18.00	06.00 08.15 10.15 15.15 18.45	06.30 09.30 15.30 17.30 19.00
*19.00 (Setiap Minggu Malam) *19.40 (Setiap Minggu Malam)		
*04.30 (Setiap Senin Pagi) *05.00 (Setiap Senin Pagi)		
Route : Tol Dalam Kota - Keluar Gb. Tol Semanggi - Komodak / Polisi Metro (Drop Point) - Senyari - Slipi - Tomang - Msl Tamans Anggrek (Drop Point) - Msl Ciputra/Glendale (Drop Point) RM Waroeng Kito, Jl. Dr. Susilo III No.2 Blk. Terminal Bis Grogol - Jaktbar (Final Point)		
JURUSAN: BANDUNG - BANDARA SOEKARNO HATTA PP		
Dari Bandung (Layanan Jemput dalam Kota Bandung)		Dari Bandara Soekarno - Hatta
01.00, 02.00, 03.00, 04.00		Reservasi (021 - 32244988)
TARIF		
BANDUNG - JAKARTA Rp. 85.000,-		
BANDUNG - BANDARA(LAYANAN JEMPUT DALAM KOTA BANDUNG) Rp. 120.000,-		
BANDUNG - BANDARA (BERANGKAT DARI POOL TRASNSPORTER) Rp. 100.000,-		
CHARTER / DROP BANDUNG - JAKARTA/ UNIT Rp. 500.000,- (all in)		
CHARTER / DROP BANDUNG - BANDARA Rp. 550.000,- (all in)		
SOEKARNO HATTA / UNIT		

* Perjalanannya diluar Wilayah Kota Bandung dikarenakan biaya tambahan Rp.10.000 s/d Rp. 20.000

Figure 2 Scope of Transporter Minibus Service

As can be seen in Figure 2, Transporter is significantly smaller compare to X-Trans in terms of number of service points both in Jakarta and in Bandung. However they provide specialized service connecting Bandung with a family recreational facilities in Jakarta with integrated (presumably discounted) payment with entrance ticket to the facilities. It is interesting that the schedule of departure is not at the same interval. It might be arranged to anticipate off peak hours. However this might confuse the users.

Bimo Trans (Figure 3) seems to cover areas which have not been well-covered by larger scheduled minibus services. None of the service points are in Jakarta. Instead, they choose

Depok (Cinere) and Tangerang (Pamulang, Gaplek, Muncul and Gintung). This is a quite strategic decision since Bodetabek (Greater Jakarta: Bogor, Depok, Tangerang, Bekasi) is a massive residential area (with potential travelers to Bandung) and still growing. If in the future Cinere-Jagorawi and Cinere Serpong toll roads are in operation, these areas would be more accessible through road based transport to Bandung. The choice of Dipati Ukur as the main service point in Bandung is also quite a good decision. Whilst other scheduled minibus services choose Pasteur (near main toll gate to/ from Jakarta) or Cihampelas (location of wide range of factory outlets) areas, the choice of Dipati Ukur is only shared by Citi Trans. Dipati Ukur is near large and well-known public university, i.e. University of Pajajaran and some others private university and therefore surrounded by student housings. These students are potential Bandung-Jakarta vv travelers. In tes of service frequency, although in average they depart every 2 hours, but in peak period, it can be set to hourly departure by shifting vehicles from less busy route.

 <p>JAKARTA BANDUNG CIREBON</p>		<p>Cirebon - Bandung (PP) 03.00 ; 06.00 ; 09.00 ; 12.00 ; 17.00 ; 19.00</p> <p>Bandung (Dipatiukur) Tujuan Gintung - Pd. Cabe - Pamulang Setiap 2 jam : 04.00 s/d 20.00 Tujuan Muncul - Pamulang Setiap 2 jam : 05.00 s/d 21.00 Tujuan Cinere 06.30 ; 12.30 ; 16.30 ; 20.30</p> <p>Bandung (Buahbatu) Tujuan Cinere 05.30 ; 09.30 ; 13.30 ; 17.30 Tujuan Pamulang 06.30 ; 10.30 ; 14.30 ; 18.30</p> <p>Jakarta (Cinere) Tujuan Dipatiukur - Buahbatu 05.30 ; 09.30 ; 13.30 ; 17.30</p> <p>Jakarta (Pamulang) Tujuan Dipatiukur Setiap jam : 04.00 s/d 21.00 Tujuan Buahbatu 06.30 ; 10.30 ; 14.30 ; 18.30</p> <p>Jakarta (Pd. Cabe) Tujuan Dipatiukur Setiap 2 Jam : 05.15 s/d 20.15 Tujuan Buahbatu 06.45 ; 10.45 ; 14.45 ; 18.45</p> <p>Jakarta (Gintung) Tujuan Dipatiukur Setiap 2 jam : 05.30 s/d 20.30 Tujuan Buahbatu 07.00 ; 11.00 ; 15.00 ; 19.00</p> <p>Jakarta (Muncul) Tujuan Dipatiukur Setiap 2 jam : 05.30 s/d 21.30 Tujuan Buahbatu 07.00 ; 11.00 ; 15.00 ; 19.00</p>
<p>CIREBON <u>door to door</u> (03.00 s/d 18.00)</p> <p>0231. 333 80 44 918 2662</p> <p>BANDUNG <u>Dipatiukur</u> (04.00 s/d 21.00)</p> <p>022. 703 66 3 25 703 66 3 26 25 33 65 9</p> <p>Buahbatu (05.30 s/d 19.30)</p> <p>022. 76 60 60 37 76 60 60 38</p> <p>call center : charter : 081 22 09 666 86 ym : bimotrans@ymail.com gtalk : bimotrans@gmail.com</p> <p>www.bimotrans.co.id</p>	<p>JAKARTA <u>Gintung</u> (05.30 s/d 20.30)</p> <p>021. 937 14 77 0 32 48 44 19</p> <p>Gaplek (05.15 s/d 20.15)</p> <p>021. 334 00 9 58 99 58 41 68</p> <p>Pamulang (04.00 s/d 21.00)</p> <p>021. 686 36 88 0 99 29 73 00</p> <p>Muncul (05.30 s/d 20.30)</p> <p>021. 334 00 9 68 998 16 15 6</p> <p>Cinere (05.30 s/d 19.30)</p> <p>021. 334 00 9 47 96 444 33 9</p>	

Figure 3 Scope of Bimo Trans Services

SUMMARY OF X-TRANS SCHEDULED MINIBUS SERVICES

Number of service points of X-Trans in Jakarta is 12, whilst the number of service points in Bandung is 5 at Cihampelas area and 1 at MTC. They can be seen at Table 1.

Table 1 X-Trans Service Points in Jakarta and in Bandung

Origin	Destination	MTC	Cihampelas				
			Oncom Raos	Pringgoandi	Ayam Goreng Jakarta	Promenade	Bumi Xtrans
Soekarno Hatta Airport		-	✓	-	-	-	-
Bintaro		-	-	✓	-	-	-
Cibubur		-	-	-	✓	-	-
Fatmawati		✓	-	✓	-	-	-
Blora-Menteng		✓	-	-	-	-	✓
Karawaci		-	-	-	✓	-	-
K. Gading/Pulo Mas		-	-	-	-	✓	-
Pancoran		-	-	-	-	-	✓
Pondok Indah		-	-	✓	-	-	-
Semanggi-K. Chandra		✓					
Serpong		-	-	-	✓	-	-
Tomang		-	-	-	-	-	✓

Table 2 shows the service hours, tariff (normal and discounted) and schedule of X-Trans services of each pair of origin and destination in Jakarta and in Bandung. It can be seen that the service hours were varied between 12 hours (Cibubur) and 24 hours (Kartika Chandra Hotel). Most service hours are between 14 and 15 hours. Morning opening hours were mainly around 6 a.m. and evening closing hours are mainly around 8 p.m. to 9 p.m. The normal tariff for traveling to and from Jakarta's service points were IDR 70,000, to and from Serpong and Karawaci service points were IDR 80,000 and lastly to and from Soekarna-Hatta International Airport service point was IDR 90,000. A discount of IDR 10,000 was applicable for passengers travelling in group consisting of minimum 3 persons. Most minibuses departs hourly or every two hours. In less busy service point such as Cibubur the minibuses departs every four hours. Travelling between the X-Trans headquarter in Blora and Bumi X-Trans, Cihampelas was available every 30 minutes. Blora is located at the heart of Jakarta and therefore is very accessible for most of potential passengers. If passenger demand was very high as indicated by the number of passengers in the queue, the management provided a medium buses (with about 25 seats) to increase carrying capacity (normally 10 seaters minibuses were operated).

OBJECTIVES

The objectives of this study is to identify the characteristics of Jakarta-Bandung vv minibus services provided by X-Trans. On the passenger side, the characteristics of the users along with their perceptions o the service will also be identified.

Table 2 Service Hours, Tarrif and Schedule Of X-Trans Services

Jakarta Origins and Destinations	Bandung Origins and Destinations	Service Hours	Tariff (Rp)		Notes
			Normal	Discounted	
Soekarno-Hatta Airport	Cihampelas (Oncom Raos)	07:30 - 22:30	90,000	80,000	Departs hourly
Bintaro	Cihampelas (Pringgoandi)	05:30 - 20:30	70,000	60,000	Departs hourly
Cibubur	Cihampelas (Ayam Goreng Jakarta)	06:30 - 18:30	70,000	60,000	Departs every 4 hours
Fatmawati	Cihampelas (Pringgoandi)	07:15 - 21:15	70,000	60,000	Departs every 2 hours
	MTC	06:15 - 20:15	70,000	60,000	Departs hourly 06:15, 10:15, 12:15, 14:15, 18:15, and 20:15
Jl. Blora-Menteng	Cihampelas (Bumi Xtrans)	05:00 - 22:00	70,000	60,000	Departs every 30 minutes
	MTC	05:45 - 19:45	70,000	60,000	Departs hourly 05:45, 09:45, 11:45, 13:45, 17:45, and 19:45
Karawaci	Cihampelas (Ayam Goreng Jakarta)	05:30 - 20:00	80,000	70,000	Departs hourly 05:30, 06:30, 07:30, 10:00, 11:00, 12:00, 14:00, 15:00, 16:00, 18:00, 19:00, and 20:00
Kelapa Gading/Pulo Mas	Cihampelas (Promenade)	06:00 - 21:00	70,000	60,000	Departs hourly
Pancoran	Cihampelas (Bumi Xtrans)	06:00 - 21:00	70,000	60,000	Departs hourly
Pondok Indah	Cihampelas (Pringgoandi)	06:00 - 21:00	70,000	60,000	Departs hourly
Semanggi (Kartika Chandra Hotel)	Cihampelas (Oncom Raos)	01:45 - 23:45	70,000	60,000	Departs every 2 hours
Serpong	Cihampelas (Ayam Goreng Jakarta)	06:00 - 20:30	80,000	70,000	Departs hourly 06:00, 07:00, 08:00, 10:30, 11:30, 12:30, 14:30, 15:30, 16:30, 18:30, 19:30, and 20:30
Tomang	Cihampelas (Bumi Xtrans)	06:00 - 20:00	70,000	60,000	Departs every 2 hours

METHODOLOGY

The data collection consisted of two main activities. Firstly to understand the service characteristics of X-Trans several interview sessions were carried out with X-Trans management. From these interview sessions the following data were collected, i.e.:

- Business and operation strategies of X-Trans.
- Number of passengers and number of vehicle departures in each service points per hour per day in various seasonal condition, e.g. weekdays, weekends, holiday seasons, etc.

Secondly 45 X-Trans passengers in Kelapa Gading, Fatmawati and Blora service points (representing various service points characteristics, 15 respondents in each point) were interviewed regarding the followings:

- Gender
- Age
- Education level
- Profession
- Job level

- Monthly expenditure
- Car and/ or motorcycle ownership
- Address of residence in Jakarta
- Mode of transport feeder from/ to home to/ from Jakarta and surroundings service points
- Mode of transport feeder from/ to Bandung destination to/ from Bandung service points
- Total cost of travel from home (Jakarta and surroundings) to Bandung final destination.
- Preferred X-Trans service points and reason of the preference.
- Level of loyalty as X-Trans user/ alternative mode of transport for travelling Jakarta-Bandung vv.
- Frequency of using X-Trans per month.
- Common day and time to use X-Trans.
- Trip purpose.
- Reason for choosing X-Trans.
- Size of luggage.
- Accompanying persons.
- Service punctuality/ convenience/ safety.
- Driver attitudes.
- Willingness to pay.

The collected data both from the management and from the users were then statistically analyzed including the followings:

- Mean difference of number of passengers and number vehicle departures of between different service points and different seasonal condition.
- Correlation between passenger socio-economic characteristics and:
 - Mode of transport feeder
 - Total cost of travel
 - Preferred X-Trans service points and reason of the preference.
 - Level of loyalty as X-Trans user/ alternative mode of transport for travelling Jakarta-Bandung vv.
 - Frequency of using X-Trans per month.
 - Common day and time to use X-Trans.
 - Trip purpose.
 - Reason for choosing X-Trans.
 - Size of luggage.
 - Accompanying persons.
 - Service punctuality/ convenience/ safety.
 - Perception on driver attitudes.
 - Willingness to pay.

Significance level of 0.05 was used for any statistical analysis. In case the use of Pearson correlation analysis was not valid, a non-parametric analysis such as Spearman correlation analysis was used.

THE SUMMARY OF THE DATA

Due to company policy, not all of the requested data can be released by X-Trans. The secondary data provided by X-Trans includes:

- March 2010 passenger departure report from each service point (from Jakarta to Bandung) as can be seen in Table 3. Although the data is presented hourly but the hourly data was aggregated for a month.
- 2009 passenger/ vehicle departure report from each service point (from Jakarta to Bandung) as can be seen in Table 4. The data is presented monthly.

It can be seen that the report was somehow prepared with different format with their leaflets (Table 1 and Table2) in terms of service points. The report in Table 3 and Table 4 were prepared for the purpose of company internal evaluation, whilst leaflets were prepared for customer use. As new service point (Blok M) was opened in 2010, Blok M was not included in Table 4. Bekasi service point ended its operation on the end of June 2009 and therefore it was not appeared in Table 3.

Table 3 March 2010 Passenger Departure Report (Jakarta to Bandung)

Service Point	Departure Time																							Monthly Pasengers	Monthly Vehicles	Passengers/ Vehicle
	1	3	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Blora - Bumi X-Trans	0	0	182	213	247	210	263	221	185	266	252	394	425	478	443	327	374	316	357	193	0	5346	926	5.8		
Blora via Jatiwaringin - MTC	0	0	129	0	0	0	113	0	0	0	119	0	59	0	119	0	44	0	0	0	0	583	115	5.1		
Jatiwaringin - Promenade	0	0	170	198	208	236	198	194	148	104	138	169	161	178	147	136	124	128	167	129	0	2933	560	5.2		
Kelapa Gading - Promedane	0	0	26	171	165	173	153	154	116	48	156	138	155	160	147	152	168	91	150	0	0	2323	466	5.0		
Tomang - Bumi X-Trans	0	0	0	140	122	139	70	146	78	103	25	168	16	173	78	106	63	123	35	0	0	1585	382	4.1		
Pancoran - Bumi X-Trans	0	0	0	198	165	197	34	178	112	113	142	180	175	222	0	244	195	176	107	0	0	2438	444	5.5		
Indah via Fatmawati - Pringgodani	0	0	0	141	175	0	217	134	142	56	154	103	193	0	208	149	157	142	117	0	0	2088	435	4.8		
Bintaro - Pringgodani	0	0	127	177	0	200	119	147	0	122	87	145	0	153	66	106	0	93	0	0	0	1542	364	4.2		
Karawaci via BSD - Pringgodani	0	0	0	188	185	208	113	202	134	144	138	155	154	174	119	161	111	116	34	0	0	2336	463	5.0		
Cibubur - Aya,Goreng Jakarta	0	0	131	167	0	174	0	154	0	106	0	117	0	133	0	119	0	16	0	0	0	1117	244	4.6		
Bandara - Bumi X-Trans	0	0	0	0	115	114	133	93	142	199	163	146	195	152	156	198	148	94	139	106	0	2293	495	4.6		
Kartika Chandra - Bumi X-Trans	237	132	133	0	130	0	126	0	161	0	172	0	219	0	240	0	215	0	267	326	326	2684	429	6.3		
Blok M - Ayam Goreng Jakarta	0	0	0	16	0	22	0	32	0	38	0	65	0	80	0	51	0	39	0	18	0	361	141	2.6		
Grand total	237	132	898	1609	1512	1673	1539	1655	1218	1299	1546	1780	1752	1903	1723	1749	1599	1334	1373	772	326	27629	5464	5.1		
Mean daily passengers																							891			
Mean hourly passengers																								5.1		

Table 4 2009 Passenger/ Vehicle Departure Report (Jakarta to Bandung)

Service Point	January			Februby			March		
	Number of Passengers	Number of Vehicles	Passengers/ Vehicle	Number of Passengers	Number of Vehicles	Passengers/ Vehicle	Number of Passengers	Number of Vehicles	Passengers/ Vehicle
Blora - Bumi X-Trans	5302	757	7.0	4907	695	7.1	5490	747	7.3
Blora via Jatiwaringin - MTC	485	98	4.9	436	90	4.8	559	99	5.6
Jatiwaringin - Promenade	3247	551	5.9	2687	471	5.7	3088	539	5.7
Kelapa Gading - Promedane	2083	352	5.9	1768	320	5.5	2130	324	6.6
Tomang - Bumi X-Trans	1657	279	5.9	1360	251	5.4	1619	278	5.8
Pancoran - Bumi X-Trans	2298	363	6.3	2212	327	6.8	2324	365	6.4
Indah via Fatmawati - Pringgodani	2376	345	6.9	2095	329	6.4	2464	374	6.6
Bintaro - Pringgodani	1682	255	6.6	1333	226	5.9	1655	262	6.3
Karawaci via BSD - Pringgodani	1912	278	6.9	1672	258	6.5	1911	280	6.8
Cibubur - Aya,Goreng Jakarta	730	129	5.7	654	117	5.6	773	122	6.3
Bandara - Bumi X-Trans	3394	472	7.2	2963	435	6.8	3075	477	6.4
Kartika Chandra - Bumi X-Trans	2211	383	5.8	2203	345	6.4	2474	387	6.4
Bekasi - Promenade	983	199	4.9	739	185	4.0	950	207	4.6
Total	28360	4461	6.36	25029	4049	6.18	28512	4461	6.39

Table 4 (Continuation) 2009 Passenger/ Vehicle Departure Report (Jakarta to Bandung)

Service Point	April		May			June			
	Number of Vehicles	Passengers/ Vehicle	Number of Passengers	Number of Vehicles	Passengers/ Vehicle	Number of Passengers	Number of Vehicles	Passengers/ Vehicle	
Blora - Bumi X-Trans	713	7.1	5659	767	7.4	5277	724	7.3	
Blora via Jatiwaringin - MTC	96	5.0	551	107	5.1	516	102	5.1	
Jatiwaringin - Promenade	517	5.5	3101	541	5.7	3088	534	5.8	
Kelapa Gading - Promedane	337	5.7	2097	351	6.0	2084	352	5.9	
Tomang - Bumi X-Trans	265	5.5	1605	280	5.7	1584	269	5.9	
Pancoran - Bumi X-Trans	350	6.1	2486	379	6.6	2460	365	6.7	
P.Indah via Fatmawati - Pringgodani	355	6.2	2529	348	7.3	2316	350	6.6	
Bintaro - Pringgodani	241	6.3	1489	234	6.4	1452	229	6.3	
Karawaci via BSD - Pringgodani	273	6.9	2024	275	7.4	2005	273	7.3	
Cibubur - Aya,Goreng Jakarta	122	5.7	766	122	6.3	918	168	5.5	
Bandara - Bumi X-Trans	454	6.2	3208	474	6.8	3123	468	6.7	
Kartika Chandra - Bumi X-Trans	379	6.2	2689	397	6.8	2502	375	6.7	
Bekasi - Promenade	202	4.0	950	203	4.7	420	96	4.4	
Total	4304	6.07	29154	4478	6.51	27745	4305	6.44	
Service Point	July			August			September		
	Number of Passengers	Number of Vehicles	Passengers/ Vehicle	Number of Passengers	Number of Vehicles	Passengers/ Vehicle	Number of Passengers	Number of Vehicles	
Blora - Bumi X-Trans	5908	843	7.0	5533	837	6.6	4363	740	5.9
Blora via Jatiwaringin - MTC	588	102	5.8	538	103	5.2	435	90	4.8
Jatiwaringin - Promenade	3362	559	6.0	3434	568	6.0	2860	530	5.4
Kelapa Gading - Promedane	2333	356	6.6	2306	365	6.3	1897	355	5.3
Tomang - Bumi X-Trans	1746	276	6.3	1789	280	6.4	1480	274	5.4
Pancoran - Bumi X-Trans	2628	367	7.2	2460	366	6.7	1885	329	5.7
P.Indah via Fatmawati - Pringgodani	2754	368	7.5	2534	362	7.0	2103	336	6.3
Bintaro - Pringgodani	1662	237	7.0	1531	248	6.2	1359	239	5.7
Karawaci via BSD - Pringgodani	2150	287	7.5	2044	307	6.7	1957	281	7.0
Cibubur - Aya,Goreng Jakarta	1256	225	5.6	1128	223	5.1	1024	231	4.4
Bandara - Bumi X-Trans	3613	481	7.5	3487	488	7.1	2771	463	6.0
Kartika Chandra - Bumi X-Trans	2709	399	6.8	2722	405	6.7	2111	363	5.8
Bekasi - Promenade									
Total	30709	4500	6.82	29506	4552	6.48	24245	4231	5.7
Service Point	October			November			December		
	Number of Passengers	Number of Vehicles	Passengers/ Vehicle	Number of Passengers	Number of Vehicles	Passengers/ Vehicle	Number of Passengers	Number of Vehicles	
Blora - Bumi X-Trans	5639	800	7.0	5334	785	6.8	5443	810	6.7
Blora via Jatiwaringin - MTC	532	104	5.1	499	100	5.0	602	104	5.8
Jatiwaringin - Promenade	3022	541	5.6	3066	528	5.8	3088	553	5.6
Kelapa Gading - Promedane	2158	369	5.8	2241	365	6.1	2247	384	5.9
Tomang - Bumi X-Trans	1614	269	6.0	1522	267	5.7	1690	306	5.5
Pancoran - Bumi X-Trans	2609	381	6.8	2367	358	6.6	2538	380	6.7
P.Indah via Fatmawati - Pringgodani	2303	357	6.5	2210	338	6.5	2294	365	6.3
Bintaro - Pringgodani	1403	248	5.7	1434	239	6.0	1534	246	6.2
Karawaci via BSD - Pringgodani	2074	292	7.1	2024	291	7.0	1908	277	6.9
Cibubur - Aya,Goreng Jakarta	1064	228	4.7	1130	225	5.0	1151	238	4.8
Bandara - Bumi X-Trans	3287	489	6.7	2895	453	6.4	3019	483	6.3
Kartika Chandra - Bumi X-Trans	2700	391	6.9	2451	367	6.7	2508	380	6.6
Bekasi - Promenade									
Total	28405	4469	6.36	27173	4316	6.30	28022	4526	6.19

From 45 respondents interviewed in Kelapa Gading, Fatmawati and Blora service points, 58% of them is male and the rest is female. This indicates male travel with scheduled minibus more than female. 20% of them aged 20 years old or younger, 55,6% aged 21-30 years old, 13.3% aged 31-40 years old and 11.1 % aged older than 40 years old. This indicates that most of X-Trans customer was dominated by the university students or young workers. Most of the

respondents (48.9%) had an undergraduate degree, 31.1% of them were high school graduates, 8.9% of them have got diploma degree (1 to 3 years vocational school after high school), 6.7% of them have got a master degree and 4.4% of them have got doctoral degree. This suggests that most of the respondents had at least university background. Most of the respondents (51,1%) monthly expenditure were between one to three millions rupiah, 20% of their monthly expenditure were between five to seven millions rupiah, 8.9% of their monthly expenditure were between three to five millions rupiah and 8,9% of their monthly expenditure were above 7 millions rupiah. This indicates that although most of the respondents were at the beginning of their career but people from higher expenditure level was still willing to choose scheduled minibus to reach Bandung. Most of the respondents had no car (60%), 33,3% owned a car and the rest owned 2 cars. This possibly reflects the reason to choose scheduled minibus. Most of the respondents (62,2%) owned a motorcycle, 31,1% had no motorcycle and the rest owned 2 motorcycles. As a motorcycle is not quite comfortable for long distance travel, this ownership proportion is sensible. The distribution of residential locations of the respondents show similar pattern with the distribution of sampled X-Trans service points. This indicates that X-Trans passengers tend to choose the closest service point to their residence. Regarding the feeder mode used to travel from home to the service point, the mode choice was relatively uniformly distributed, i.e. 28,9% using car, 26,7% using motorcycle and the rest using other means of transport including walking. Regarding the feeder mode used to travel from Bandung X-Trans service point to the final destination, the dominant mode choice was motorcycle (44,4%) followed by car (13,3%). The rest were using other mode of transport including walking. The need to use feeder mode to reach the service points and to reach final destination indicates that there are still wide opportunity for other minibus company to take the uncovered area.

24,4% of the respondents stated that punctuality was their reason for choosing X-Trans, 20% because of the comfort, 17,8% because the closeness to their residence, 13,3% because of the closeness to their final destination, 8,9% because of strategic location of the service points, 6,7% because of the travel time, and each 4,4% because of family/ friend recommendation and habit. If they were not using X-Trans service 46,7% of them took buses, 31,1% of them took scheduled minibus from other company, 6,7% took train, 4,4% used private vehicles and the rest used various mode of transport. Most of them (31,1%) travel to Bandung once a month using X-Trans, 22,2% 2 to 3 times per month, 22,2% once a week and the rest had other frequency of travel. Most of them (55,6%) had no regular pattern of leaving Jakarta using X-Trans to Bandung. However 22,4% of them usually travels in Monday. The Later indicates possibility that this group were Jakarta residence who work regularly in Bandung. Most of them (88,9%) were not carrying large luggage perhaps because the vehicles had limited space for luggage and because they will stay in Bandung only for short period. 73.3% of the respondents were travelling alone, the rest were travelling with family members (13,3%) or travelling with friends (13.3%). For travelling in a group, it might be more convenient to use private car or company car. The passengers seem to be satisfied with X-Trans service as 93,3% of them said that the services were punctual, 100% of them said that the services were safe and 97,8% of them said that the drivers were kind. Additionally 97,8% of them considered that drivers attitude were good. 80% of the respondents felt that the fares were reasonable, however 46,7% of the respondent will choose other scheduled minibus company if the competitor can offer cheaper service with the same standard with X-Trans. On the other hand 36,7% of the respondent can be considered as loyal customer as they were not interested to choose other company even if cheaper fare offered.

THE ANALYSIS

Data from Table 3 was first grouped into period 1, i.e. early morning period (5-8 a.m. of departure time), period 2, i.e. morning/ afternoon period (9 a.m.-4 p.m. of departure time), period 3, i.e. afternoon/ evening period (5-9 p.m.). Travel data before 5 a.m. and after 9 p.m. were skipped since they were considered as outliers. The average of hourly data in each period was then calculated and paired. There were 3 pairs of time period, i.e. period 1 versus period 2, period 1 versus period 3 and period 2 versus period 3. T-tests of mean of paired samples differences show that none of the differences were significant at significant level of 0.05. This suggests that although there were differences between pairs, but the differences were too small and therefore not statistically significant. However, correlation analysis between paired data shows that paired data correlated each other significantly. This suggests that although the number of passengers on each service point was different but the pattern of number of passengers in each service point is the same, i.e. busiest service point was still busier than other service points even on a less busy period.

Data from Table 4 was first grouped into normal period (February to May and September to November) and holiday period (January, July, August and December). T-Test of mean of paired samples differences show that all the differences (in terms of number of passengers, number of vehicles and number of passengers per vehicle) were significant at significant level of 0.001. Similar with the previous paragraph, although the number of passengers on each service point was different but the pattern of number of passengers in each service point is the same. i.e. busiest service point was still busier than other service points even on a less busy period.

Although the t-test of mean difference between male and female frequency of travel not statistically significant but male tend to travel more frequent than female. Monthly expenditure and number of cars owned were correlated positively and significantly at significant level of 0.05 with frequency of travel. This suggests that wealthier people tend to travel more frequent (surprisingly using scheduled minibus).

In general there were no socio-economic characteristics (in terms of education level, job position, monthly expenditure and number of cars owned) difference between passengers travelling from Kelapa Gading, Fatmawati and Blora. The only relatively large difference was in average the education level of Kelapa Gading Passengers was higher than the education level of Fatmawati Passengers. However the difference was not significant in 0.05 significant level.

CONCLUSIONS AND RECOMMENDATIONS

From this study, there are some conclusions as follow:

1. Most of the X-Trans customers were male.
2. Most of the X-Trans customers were aged between 21-30 years, had at least university background, had a monthly expenditure between one to three millions rupiah, had no car but owned a motorcycle.
3. The need to use feeder mode to reach the service points and to reach final destination indicates that there are still wide opportunity for other minibus company to take the uncovered area.

4. Punctuality, comfort, closeness to the residence, closeness to the final destination and strategic location of the service points were the main reason for the respondent to choose X-Trans.
5. Most of the respondent use X-Trans once a month and had no regular pattern of travel.
6. Most of the respondents usually travel alone and not carrying large luggage.
7. The passengers seem to be satisfied with X-Trans service in terms of punctuality and attitude of the driver.
8. Most of the passengers found that the fare was reasonable. However, 46,7% of the respondents will choose other scheduled minibus company if the competitor can offer cheaper service with the same standard with X-Trans. On the other hand 36,7% of the respondent can be considered as loyal customer as they were not interested to choose other company even if cheaper fare offered.
9. There were no significant difference between mean number of passengers in the morning, afternoon and evening passengers.
10. Mean number of passengers and mean number of departing vehicles on holiday months were significantly higher than on non-holiday months.

ACKNOWLEDGMENT

I herewith acknowledge the kindness of X-Trans to provide the required data and to allow the researcher to interview some passengers.

REFERENCE

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<http://www.xtrans.co.id>.