Pilot Projects on Freight Transport Demand Management

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TDM (Transportation Demand Management) Pilot Projects

Goal: Realization of smooth and environment-friendly urban transport

Current Conditions:
- Local Environment:
  - 41% of NOx is emitted from automobiles in metropolitan areas
- Global Environment:
  - 19% of CO₂ in Japan is emitted from automobiles

Traffic Volume has grown faster than the development of roads.
The loss of national product due to traffic jam is estimated approximately 12 trillion Yen.

Scheme: MLIT (Ministry of Land, Infrastructure and Transport) aids 1/3 of the total cost of each pilot project, while other 2/3 comes from local authorities and private sectors such as goods holders.

Menu: Large flexibility is given to local authorities and related private sectors.

Typical Projects:
- Improve service level of the public transportation.
- Facilitate efficiency urban goods transport
- Shift the current of the Traffic
  - Shift of passengers to public transport by discount of fares, e.t.c
  - Consolidation e.t.c.
  - Leading vehicles to less congested Road by discount of tolls e.t.c
Marunouchi Area TDM Pilot Projects (Urban goods transport), Tokyo

Marunouchi Area
- One of the largest business districts in Tokyo
- Some old buildings were being reconstructed

Traffic Conditions
- Serious congestion caused by
  1) temporary parking on the street
  2) loading/unloading trucks on the street
  3) frequent and un-integrated shipping by individual carriers

<Goals>
Improve traffic flow and environmental conditions by
- reducing number of vehicles
- reducing on-road parking
- reducing delivery time

<Outline of the project> : refer to next 2 pages
Marunouchi Area TDM Pilot Project (Urban goods transport), Tokyo

Before Project

Goods carriers or Goods holders

Each goods delivery was conducted separately
Marunouchi Area TDM Pilot Projects (Urban goods transport), Tokyo

Goods carriers or Goods holders

5 Specific Transport Operators

A Transport
Stock Point
Located in Koutouku

B Transport
Stock Point
Located in Shinagawaku

C Transport
Stock Point
Located in Koutouku

D Transport
Stock Point
Located in Koutouku

E Transport
Stock Point
Located in Koutouku

Location: “Kajibashi Parking” near Marunouchi area.
Business Architecture: Operating Company is paid 50 yen per parcel.
Operating time: from 8:00 a.m. to 5:00 p.m.
1 or 2 person(s)

CU: 3 persons

CNG: Compressed Natural Gas

Stricter control over illegal parking

CU: Carriers to Upstairs in each building
Marunouchi Area TDM Pilot Projects (Urban goods transport), Tokyo

Outcome of the Project…

- Reduction in number of vehicles: 7%
- Reduction in illegal on-road parking: 46% (16 vehicles/100m)
- Reduction in emissions: 47% (NOx), 51% (SPM)

Practical Application of the Project

Marunouchi Building, which was reconstructed and renewed to become a famous shopping and business complex in September 2002, adopted ‘Drive through’ unloading method to delivery service within the building, with staff in charge of in-building delivery. The application of these delivery skills tried in the pilot project are being considered in other buildings.

Issues for Further Discussion

- Further cost down and improvement of the level of service
- Further reduction of incoming trucks by involving more vehicles
- Regulation and voluntary work against illegal parking
- Rule of financial burden among related parties
Akihabara TDM Pilot Project (Urban goods transport), Tokyo

Akihabara
- The Largest Shopping Area of electronic products in Japan
- located at the center of Tokyo Metropolitan Area

<Features>
- hundreds of small shops on narrow streets
- shops with small spaces display goods on the streets
- almost no shop has its own off-road space for unloading delivered goods

<Problems>
- Many consumers and their own automobiles
- Huge number of distribution truck
  - Traffic jam occurs
  - Causes air pollution, risk of traffic accidents

Pilot Project
<Planned Schedule>
from August to September, 2004
<Goals>
- Reducing number of trucks
- Realizing smooth traffic flows
<Consultation>
- established consortium consisted of local authorities, retailers, manufacturers (as goods holders), carriers, academics, and MLIT.
<Topics>
- RFID (Radio Frequency Identification) will be used to manage the transportation
Akihabara TDM Pilot Project (Urban goods transport), Tokyo

Idea of Akihabara Area distribution model

<Public Distribution Center>
Will be located very close to Akihabara

<Pick Up Center>
Consumers finally pick up their purchased goods just before getting out of Akihabara

Difficulties...

Need to change existing business framework
  e.g. Wholesale, Sales kickback

Who operates the center?

The less stock, the more loss of sales chance,
retailers(shop managers) are concerned…

How to make consumers use the Pickup Center.
  e.g. advertisement, and who bears it, security,
additional merit to consumers such as amusement, e.t.c.