ROAD FREIGHT INDUSTRY

(Role of Freight Agents)

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ABSTRACT

This report describes the results of structured interview surveys held with 188 freight consignors and 237 freight forwarding agents in Pakistan between February and May 1986; it forms one of a number of papers written on various aspects of the freight transport industry in that country. The surveys largely focussed on those operating in the private road transport sector and were concerned with the factors influencing the methods by which freight was consigned and the way in which freight forwarding agents operated. Views on possible future developments within the freight transport industry were also sought.

Time savings outweighed other considerations in the consignors' choice of freight transport modes. One third of the consignors owned vehicles of their own but tended to use them only for local deliveries; 'own account' trucking operations for the transportation of inputs and outputs amongst the industrial firms was extremely rare. The haulage of freight for these firms was almost always contracted out to private 'hire and reward' operators. Freight forwarding agents were found to be involved in a significant proportion of road freight movements. About half of the consignors interviewed maintained regular contacts with a freight agent and over 60 per cent of trucks intercepted in a roadside survey had obtained their current load through an agent. Telephone ownership and use amongst freight agents was high and together with personal contacts represented an important means by which to obtain business. Nearly 90 per cent of freight agents could obtain a vehicle to consign a load within one hour. It was widely believed that scope existed for the introduction of some sort of centralised freight booking scheme which could further improve the efficiency of freight transportation.

1. INTRODUCTION

It is generally believed that the freight industry in Pakistan operates relatively efficiently when compared with other developing countries, and preliminary investigations have indicated that the role of freight forwarding agencies in bringing together freight consignors and freight transporters may be an important one. A previous study of West Pakistan in 1970 described freight agents as 'the key to the effectiveness of the trucking industry in Pakistan...evolving to fill a need unique to the conditions in West Pakistan' in a situation where consignors' vehicle fleet sizes were generally small and much of their freight was therefore contracted out to transporting firms. Thus it was felt necessary to investigate the way in which freight forwarding agents and consignors operated to gain an insight into the importance of the freight agents role, and also to get a feel for the difficulties they face and their views on future developments in the freight industry in Pakistan.

The following report describes the results of surveys made in Pakistan of freight agents and consignors. This study formed part of a wider survey on the freight transport industry carried out under a programme of cooperative research between the National Transport Research Centre (NTRC) of Pakistan and the Overseas Unit of the Transport and Road Research Laboratory. The purpose of the research is to assist the government with the planning and formulation of policy for the transport sector as a whole, and to help improve the efficiency of freight transport operations. In addition it is hoped that any appropriate lessons learned here might be applied to developing countries elsewhere.

2. THE SURVEYS

The study was set up and run between February and May 1986 by two economic investigators employed by NTRC. Interviews were held with freight agents and the transport or marketing manager of large industrial firms in a number of major towns throughout Pakistan. The survey samples were chosen to be as representative as possible of the situation throughout Pakistan but were necessarily restricted to urban areas in which either Urdu, Punjabi or English was spoken. A list of the main towns in which interviews were held is given in Table 1. and Figures 1. and 2. show the location of the surveys.

Table 1. Location of interviews for freight agents and consignors.

LOCATION	Number of interviews	
	FREIGHT AGENTS	CONSIGNORS
Karachi	49	56
Lahore	37	36
Rawalpindi	29	23
Faisalabad	29	1
Gujranwala	28	18
Sarghoda	24	14
Sukkur	19	13
Abbottabad	9	11
Attock	9	10
Sheikhupura	–	4
Others	4	2
Total	237	188

The interview of consignors (see Appendix 1.) focussed on the type of freight consigned, the mode chosen and the degree to which freight agents were used as well as seeking views on future developments within the freight industry. The freight agents interview (given in Appendix 2.) attempted to establish the type of work undertaken, the type, size and mode of freight consignments dealt with and the importance of ancillary services such as telephones and warehouses; opinions were also sought from both agents and consignors regarding the introduction of larger trucks, containers and a centralised freight booking scheme, and particular problems experienced by the agent were noted. It should be emphasised that both questionnaires shown in the appendices acted only as guidelines and the interviewees were actively encouraged to expand and comment on any relevant issues during the interview.

Overall, it was felt the surveys were representative of those concerned with the movement of freight by private road transport; however, due to the fact that the use of rail transport and the National Logisitics Cell (NLC) for the shipment of freight tends to come from a small number of large consigning organisations, such modes were under-represented in the survey sample.

In addition to the consignors and agents interviews, supplementary data was drawn from a Roadside Interview Survey which took place from January to April 1986 and entailed over 3300 interviews at 39 separate sites. Information collected included data on vehicle ownership, commodities carried, the use of freight agents by truck drivers, and the tariffs charged by the agents.

FIGURE 1.

PAKISTAN ROAD FREIGHT INDUSTRY: Interviews With Freight Consignors

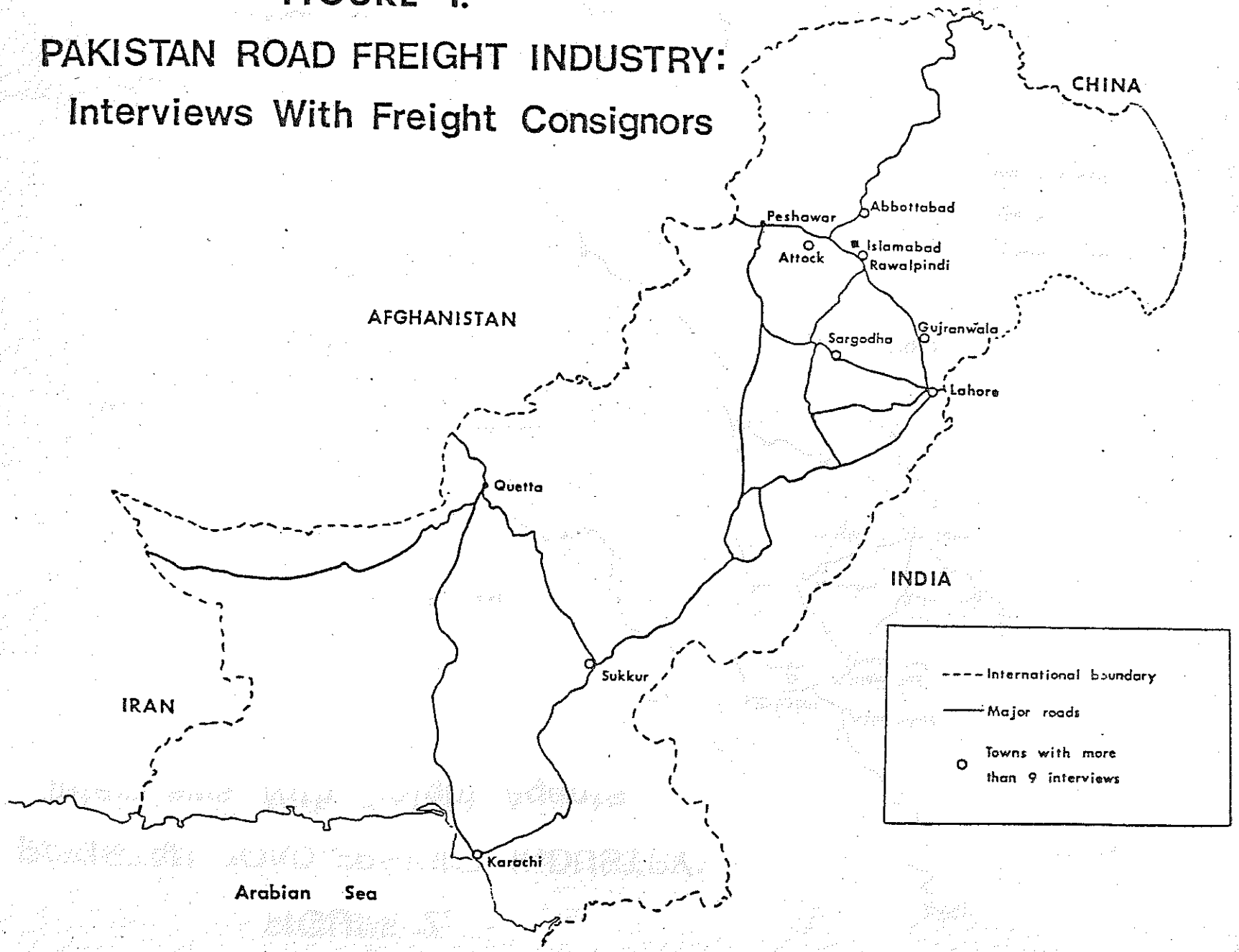
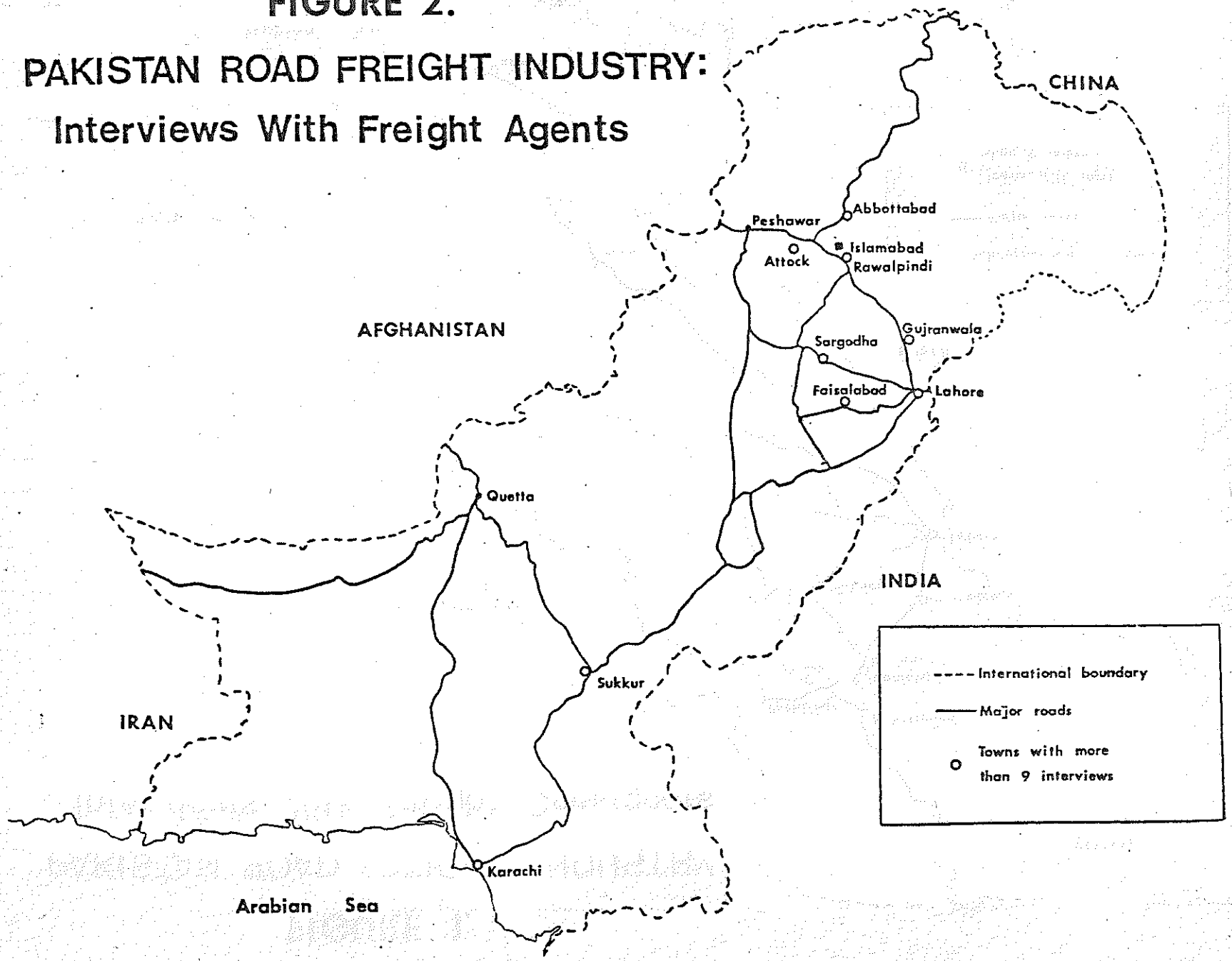


FIGURE 2.

PAKISTAN ROAD FREIGHT INDUSTRY:

Interviews With Freight Agents



3. RESULTS

3.1 CONSIGNORS

Table 2. below illustrates the range of business types represented in the interview survey of freight consignors.

Table 2. Business types in survey of consignors.
(Source: Consignors Survey)

BUSINESS TYPE	CONSIGNORS Total	%
Textiles	35	18.6
Small manufactures	22	11.8
Industrial mechanics	19	10.1
Iron and steel	18	9.6
Agricultural produce	17	9.0
General raw materials	15	7.8
Food/animal feed	9	4.8
Cement	7	3.7
Agricultural mechanics	6	3.2
Vegetable oil/ghee	5	2.7
Minerals	5	2.7
Petroleum products	4	2.1
Fertiliser	1	0.6
Others	25	13.3
	188	100.0

3.1.1 Choice of transport mode

For those consignors who were responsible for the decison as to which mode to use for the consignment of inputs and outputs (which included three-quarters of the total sample), one third stated that the time factor was the most important reason for their choice; concern for damage to goods and convenience also ranked highly, but the cost factor was only quoted as being of prime importance by 10 per cent of these consignors.

Analysis of the modes chosen revealed that 85 per cent of the consignment of raw materials and finished products was carried out by Bedford 2-axled rigid trucks and other Japanese 2-axled rigid models; 10 per cent was transported by trucks with trailers and a further 4 per cent was moved in containers. Rail transport was a less important mode for these consignors, accounting for less than 1 per cent of all freight consignments, despite the fact that 15 per cent of consignors had a rail siding on site and 7 per cent of consignors (largely cement manufacturers and petroleum companies) stated that they used a rail siding regularly.

An examination of the individual trips for which rail was chosen revealed quite clearly that it was the preferable mode only over long distances such as between Karachi and Rawalpindi or Lahore. The general attitude towards the railways was very negative amongst those surveyed. Sixty per cent felt the delays associated with rail transport and the extra loading and unloading charges incurred in transporting the freight from the railway depot to the factory were prohibitive to its use. Widespread concern was also expressed about the apparent lack of accountability for damage to goods transported by rail, despite the legal responsibility of the railways in such instances. These feelings are reflected by the fact that 30 per cent of the consignors in the survey who had a railway siding had relinquished its use and wished to be rid of it. Thus despite the clear economic advantage that longer distance unit train movements and dry port trains have over roads, it would appear that the flexibility, rapid delivery, convenience and greater accountability for damage associated with road transport, all of which were highly valued by the consignors interviewed, would account for the insignificant role of the railways in transporting freight for these consignors.

A small proportion of the consignors interviewed used NLC trucks to transport their raw materials; very mixed comments on the quality of service were given, ranging from the advantages associated with the large trucks used to the disadvantages of the extra documentation involved and the rigid regulations regarding drivers' hours.

3.1.2 Vehicle ownership and use

A noteworthy feature of the consignors' operations revealed by the survey was the lack of vehicles run on an 'own account' basis. For the majority of the consignors interviewed, the consignment of all inputs and outputs was contracted out to 'hire and reward' operators. Approximately one third of the consignors had transport of their own but these vehicles were predominantly used for the movement of goods and raw materials in the local vicinity; only 12 consignors used their vehicles over long distances. The major advantages of vehicle ownership were felt to be a reduction in delays and the reduced probability of freight damage or theft (see Table 3.).

Table 3. Advantages of vehicle ownership.
(Source: Consignors Survey)

Advantage of owning vehicles	Percentage of responses
Less delays	53
Less damage to goods	32
Fewer incidents of theft	8
Increased customer contact	7
	100

A number of disadvantages associated with vehicle ownership were also pointed out (see Table 4.); 43 per cent felt that the difficulties of managing vehicles and staff in situations of fluctuating demand were the most important problem, and the difficulties of trying to obtain return

loads were also cited as major disadvantages of running 'in-house' transport operations. Over half of the consignors simply stated that such operations would not be financially viable or appropriate to their business, and the comment was frequently made by consignors that they could not compete with the private 'hire and reward' truck operators. Further evidence of this pattern was revealed from the Roadside Interview Survey where less than 1 per cent of the trucks intercepted were operated on an 'own account' basis.

Table 4. Disadvantages of vehicle ownership.
(Source: Consignors Survey)

Disadvantage of owning vehicles	Most important problem (percentage of consignors)	Proportion of all problems mentioned
Managing staff/vehicles	43	34
Financial problems	32	49
Empty return journeys	5	9
Other	1	8
No reply	19	-
	100	100

60 per cent of all vehicles operated by these consignors were Bedfords and two-thirds of those who had a vehicle had at least one Bedford; other popular models were Mazda trucks accounting for 15 per cent of all vehicles and Suzuki pick-ups(10 per cent). The popularity of the Bedford truck was more marked in North West Frontier Province whilst the larger and more powerful Japanese models were more predominant in Sind province (see Table 5.).

Table 5. Truck types owned by freight consignors.
(Source: Consignors Survey)

PROVINCE	NUMBER OF VEHICLE-OWNING CONSIGNORS	TOTAL NUMBER OF TRUCKS OWNED	PERCENTAGE OF :		
			BEDFORDS	OTHER TRUCKS	PICK-UPS
Sind	23	110	32	53	15
Punjab	36	214	76	10	14
NFWP	3	13	54	0	46
Baluchistan	1	3	0	100	0
All provinces	63	340	60	25	15

3.1.3 Contact with freight agents

Over half of the consignors in the survey maintained regular contacts with freight agents; the large majority of these were in the form of a written yearly contract setting fixed freight rates for that period whilst about 20 per cent had established more informal relationships with one or more agents agreeing to direct work to an agent over a shorter time period (see Table 6.).

Table 6. Consignors relationship with freight agents.
(Source: Consignors Survey)

RELATIONSHIP WITH FREIGHT AGENT	CONSIGNORS	
	Total	%
No relationship with any agent	86	45.7
Informal relationship with one agent	15	8.0
Informal relationship with several agents	7	3.7
Written contract with fixed rates for one year	80	42.6
	188	100.0

It was not possible to draw any conclusions with regard to the difference in rates charged per tonne kilometre between those consignors who had a formal contract with an agent and those who did not, due to the lack of directly comparable data of load types and routes.

3.1.4 Views on larger trucks, containers, and computerisation

Out of the consignors surveyed, only a small number stated that they were unable to get a tractor-trailer truck unit onto their premises (see Table 7.). Responses to the introduction of larger trucks into the freight industry in Pakistan were highly favourable amongst 62 per cent of consignors surveyed; only about a quarter of the consignors expressed reservations such as the damage to roads and bridges which might ensue or that they did not deal with loads of a size appropriate to larger vehicles, and these comments were frequently made by consignors who were unable to get a tractor-trailer unit into their premises.

Table 7. Consignors able to get tractor-trailer units onto their premises.
(Source: Consignors Survey)

Can a tractor trailer unit enter your main premises ?	CONSIGNORS	
	Total	%
yes	115	61
no	12	6
no reply	61	33
	188	100

The use of containers was not particularly widespread; only 23 per cent of the consignors used them at all and two-thirds of these used them less than 3 times a month. There was little enthusiasm about the wider introduction of containers with only 35 per cent positively expressing a need for such a development against 44 per cent who felt it unecessary, although half those firms who had access for tractor-trailer units felt it would be a good idea. Overall, the consignors appeared well able to

perceive the benefits of the idea of a centralised freight booking scheme (described in the results of the freight agents survey); 45 per cent of the consignors gave it a very positive reception whilst just over 1 per cent rejected it out of hand.

3.2 FREIGHT AGENTS

3.2.1 Ownership and operations

The vast majority of freight agents interviewed were either owned by one man or operated as partnerships; just over half of the agents operated from one office only, but 41 per cent had up to 4 other branches and a handful had as many as 20 other offices which would typically have been run by relatives or contacts. The forwarding of freight was very clearly the major operation for the agents; 43 per cent also operated a small number of vehicles of their own and 65 per cent ran a warehouse of some sort. Less than 5 per cent were involved in the financing or trade of trucks or other freight related business such as importing, exporting, wholesaling or retailing.

The freight agents who did not operate a warehouse tended to deal mainly with bulky raw materials such as stone, gravel, or iron and steel. Covered warehouses were utilised by 63 per cent of the agents, whilst a handful relied entirely on storage in the street. The capacity of these varied widely from those able to store the equivalent of one Bedford truck load (approximately 8 tons) to those able to cover 30, although the majority were somewhere between 2 and 5 Bedford loads.

For the agents interviewed, private road transport (i.e.trucks) accounted for over 99 per cent of all freight consigned, with a small amount consigned by the NLC and sea transport; no freight was consigned by rail or air at all (see Table 8.).

Table 8. Modal split for freight consignments.
(Source: Freight Agents Survey)

MODE	PROPORTION OF TOTAL FREIGHT CONSIGNED(%)
Road(private)	99.4
NLC	0.3
Sea	0.3
Rail	0.0
Air	0.0
	100.0

3.2.2 Vehicle ownership and use

About two fifths of the agents operated at least one truck of their own which was usually a Bedford; only one quarter of all agents had 3 or more

trucks and 13 agents operated fleets of 20 or more trucks (see Table 9.).

Table 9. Vehicle ownership amongst freight agents.
(Source: Freight Agents Survey)

NUMBER OF VEHICLES OWNED	FREIGHT AGENTS	
	Total	%
0	136	57.4
1	12	5.1
2	17	7.1
3	15	6.3
4	7	3.0
5 to 9	27	11.4
10 to 19	10	4.2
over 20	13	5.5
	237	100.0

Bedfords were by far the most popular model employed overall, accounting for over 50 per cent of the total, followed by Nissan trucks (24 per cent), Hinos (21 per cent) and Isuzus (3 per cent). As in the consignors' survey, it became clear that Bedfords were particularly popular amongst freight agents in North West Frontier Province whilst the other models were predominant in Sind province (see Table 10.).

Table 10. Truck types owned by freight agents.
(Source: Freight Agents Survey)

PROVINCE	NUMBER OF AGENTS WHO OWN TRUCKS	TOTAL NUMBER OF TRUCKS OWNED	PERCENTAGE OF BEDFORDS	PERCENTAGE OF OTHER TRUCKS
Sind	19	244	29	71
Punjab	77	634	48	52
NFWP	6	59	90	10
All provinces	102	937	46	54

3.2.3 Consignments and rates of commission

The predominant commodity types consigned by the agents could be split into several broad categories which attracted tariffs from the freight agents ranging from 4.6 per cent to 9 per cent of the total journey revenue (see Table 11.). About one quarter of those interviewed dealt largely with general merchandise especially those based in the large urban centres of Karachi, Lahore and Rawalpindi. Basic manufactures such as iron and steel and textiles were the main commodity for 22 per cent of the agents and other manufactures such as machinery accounted for a further 13 per cent of those surveyed. Fifteen per cent of the agents, especially those in the north-west of Pakistan, were primarily concerned with consignments of quarried minerals such as sand, gravel and stone and 15 per cent of agents were involved in the movement of agricultural products such as wheat and fruit.

Table 11. Major commodities consigned by freight agents.
(Source: Freight Agents Survey)

MAJOR COMMODITIES CONSIGNED	FREIGHT AGENTS		MEAN AGENTS CHARGE (expressed as a percentage of journey revenue)
	Total	%	
Agricultural produce (unrefined)	35	15	4.6
Processed agricultural produce	20	8	5.8
Ores and quarried materials	36	15	7.8
Basic manufactures (iron/steel/textiles)	51	22	5.9
Other manufactures	31	13	7.0
General merchandise	55	23	9.0
Miscellaneous	9	4	-
total	237	100.0	
overall mean			5.8

Almost one third of all the freight agents' consignments were 'smalls' (i.e. less than one ton). Approximately a quarter were over 20 tons and a quarter were between 12 and 20 tons in weight. Only 16 per cent of consignments were between 7 and 12 tons which is the consignment size ideally suited to the Bedford truck.

The results from the Roadside Interview Survey of truck drivers also indicated that freight agents were rarely utilised for short journey distances (see Table 12.). For all drivers with loaded trucks making journeys of less than 50 kilometres, only 20 per cent made use of an agent whilst around 80 per cent of those making journeys over 500 kilometres used a freight agent.

Table 12. Use of freight agents and journey distance.
(Source: Roadside Interview Survey)

JOURNEY DISTANCE (Kms.)	NUMBER OF LOADED TRUCKS SURVEYED	PERCENTAGE OF DRIVERS USING AN AGENT
less than 50	149	20
50 - 100	225	28
101 - 200	371	49
201 - 500	608	66
501 - 1000	528	75
1001 - 1500	352	85
more than 1500	146	79
all journeys	2379	62

It also became clear that freight agents were less likely to be used for particular cargo types. Agents were not used by 45 per cent of drivers consigning quarried material and the movement of petrol, diesel and oil rarely involved an agent; however, between 60 and 80 per cent of trucks transporting manufactures or agricultural produce had made use of an agent.

Information regarding agents' rates of commission derived from the Roadside Interview Survey of truck drivers showed little consistent pattern between freight agents' tariffs and vehicle types. There did however appear to be some consistency between agent's tariffs (expressed as a proportion of total revenue) and load sizes, with loads over 12 tons attracting tariffs approximately 1 per cent lower on average than loads under 12 tons. Agents' charges were significantly higher on short journeys also, averaging around 9 per cent of total journey revenue on journeys made by 2-axle Bedfords of between 50 and 100 kilometres, and around 5 per cent of total revenue on journeys over 200 kilometres (see Table 13.).

Table 13. Freight agents' tariffs for different journey lengths.
N.B. Refers to 2-axle Bedfords only
(Source: Roadside Interview Survey)

JOURNEY DISTANCE (Kms.)	MEAN TARIFF CHARGED BY FREIGHT AGENT (% of journey revenue)
less than 50	11.3
50 - 100	8.8
101 - 200	7.1
201 - 500	5.6
501 - 1000	5.0
1001 - 1500	4.8
more than 1500	5.8
all journeys	5.8

Further analysis of the Roadside Interview Survey revealed a mean charge made by the agent of 5.6 per cent of total journey revenue for freight moving up-country away from the ports in the Karachi area in 2-axle Bedfords, and a mean charge of 6.2 per cent for the same vehicle types moving southwards towards Karachi. This is consistent with the more marked differences in mean revenue per tonne kilometre received by the truck drivers, reflecting the net movement of freight inland from Karachi.

3.2.4 Business channels

An important feature of the freight agents' operations was the outstanding availability and quality of communication channels; 90 per cent had a working telephone which together with personal callers represented the most important mode for obtaining business. Over 95 per cent of the agents relied on telephones or personal callers to procure their business and overall, personal contacts accounted for two thirds of all business whilst telephones were used to obtain just under one third of all business. All but 4 per cent of those interviewed had a satisfactory postal service but this was a relatively unimportant method by which business was obtained; telexes and telegrams were not used at all. The methods used to obtain business were partly reflected in the location of major customers for the agents - apart from those in Karachi and Sukkur, a large proportion of demand came from the urban centre in which the agent was located. This was reflected in the high proportion of business obtained through personal callers (between 60 and 80 per cent), whilst the agents in Karachi with major 'markets' in Lahore and Rawalpindi and the agents in Sukkur with

'markets' scattered all over, acquired on average 53 per cent and 45 per cent of their business by telephone (see Table 14.).

Table 14. Methods used by freight agents to obtain business.
(Source: Freight Agents Survey)

FREIGHT AGENTS LOCATION	MODE THROUGH WHICH BUSINESS IS OBTAINED (mean percentage)		
	BY TELEPHONE	THROUGH PERSONAL CALLERS	BY POST
Karachi	53	47	0
Lahore	38	62	0
Rawalpindi	31	65	4
Sukkur	45	55	0
Faisalabad	25	75	0
Sarghoda	17	83	0
Abbottobad	37	63	0
Attock	14	86	0
Gujranwala	15	85	0
Others	37	63	0
All agents	33	66	1

Little trade appeared to be on the basis of long term contracts; only 25 per cent of the agents surveyed operated such contracts at all and this accounted on average for only 56 per cent of their business. It was however common practice to offer regular services to particular destinations; these were usually major urban centres and the towns of Lahore, Karachi, Rawalpindi, Faisalabad and Peshawar were the destinations for over half of the regular services offered. Overall 76 per cent of the agents offered such a service, and it was interesting to note that only a slightly higher proportion of agents who owned at least one vehicle offered a regular service (81 per cent) than those without vehicles (72 per cent); the agents without vehicles could presumably rely upon the local market for a regular supply of trucks.

3.2.5 Time taken to find transport

A crucial feature of freight operations revealed by the survey of agents was the rapidity with which vehicles were obtained to cope with demand. For 64 per cent of the agents interviewed there were usually no delays at all in finding a vehicle and on average, 89 per cent of the agents could obtain a truck within the hour and 94 per cent could procure one within 2 hours (see Table 15.). Only a very small proportion of the agents in the survey had to wait as long as 24 hours. It was significant that of the 12 freight agents who on average had to wait 4 hours or more to obtain a truck, 10 did not own any vehicles and when agents owning at least one vehicle were examined alone, the mean time to wait for a truck fell from somewhere in the region of 50 minutes for all the agents to around 30 minutes.

Table 15. Delays for freight agents in obtaining trucks.
(Source: Freight Agents Survey)

AVERAGE LENGTH OF TIME TO WAIT (hours : mins)	ALL FREIGHT AGENTS		FREIGHT AGENTS WITH ONE OR MORE VEHICLES	
	Total	Cumulative %	Total	Cumulative %
0 : 00	151	63.7	73	71.6
0 : 15	11	68.4	6	77.5
0 : 30	1	68.8	1	78.4
1 : 00	48	89.0	13	91.2
2 : 00	12	94.1	7	98.0
3 : 00	2	94.9	-	-
4 : 00	6	97.5	1	99.0
5 : 00	2	98.3	-	-
12 : 00	1	98.7	-	-
24 : 00	3	100.0	1	100.0
	237		102	

Similarly, when asked what the maximum time that a customer may have to wait before a truck could be obtained for them, 60 per cent of all agents stated less than one hour and only 27 per cent said that the maximum time a customer may be kept waiting would be 24 hours or more; the overall mean of 14 and a half hours fell to 10 and a half hours when only vehicle owning freight agents were considered. Thus vehicle ownership appeared to have a beneficial effect on the rapidity with which transport could be found to ship customer's consignments.

3.2.6 Problems and views on future developments

The opinions sought from the freight agents regarding particular problems and the future of the freight industry were particularly revealing. Certain commodity types such as dangerous chemicals were singled out as particularly difficult to handle and problems of loads being too big or too heavy for the trucks available were cited by a small handful of agents (7 per cent). More frequently though, problems of operating in certain areas of Pakistan were mentioned; North West Frontier Province and Azad Kashmir regions were cited by 15 per cent of the agents due to steep and poorly surfaced routes, the unavailability of permits and difficulties in obtaining return loads from these remote areas; also quoted were the problems of robbery in Sind province.

Problems regarding the operation of large trucks were only cited by about 20 per cent of the agents; these were frequently expressed as concern that such vehicles could offer lower rates than the smaller Bedford truck and would therefore be detrimental to Bedford owners (43 per cent of the agents surveyed owned at least one Bedford). Other comments revolved around the inappropriateness of such vehicles to steep and tortuous mountain roads (particularly from agents in the northern regions) or narrow city streets, and the unavailability of suitably sized loads which would negate the scale economies offered by larger vehicles.

Attitudes towards the introduction of containers were weakly expressed; 70 per cent made no comment at all but of those who did respond, the numbers in favour were outnumbered by nearly 2 to 1 by those against the idea. The general feeling was that it would not be appropriate in Pakistan due in particular to the difficult terrain, small bridges and problems of large vehicles in urban areas. Also, the loss of flexibility with regard to load size would not suit many agencies, particularly those dealing mainly with the smaller consignment sizes.

The freight agents were also asked if they felt the introduction of a centralised computer system designed to reduce empty running by matching goods to vehicle movements would be acceptable. Such a scheme might be similar to 'Datafreight' which used to be operated by British Road Services in the United Kingdom; information was collected on the location of goods which needed to be moved around the country and vehicles that were running empty. In Pakistan, such information could be stored on a central computer and freight agents and truck drivers could telephone in with the latest details on consignments and empty vehicles. The reactions to the introduction of such a centralised booking scheme were generally positive. Over 85 per cent felt such a scheme should be introduced and many felt it would reduce the monopolisation of freight consignment by certain agencies. However, 18 per cent did express reservations about how smoothly such a system could operate due to the generally low level of education, and those agents without telephones were quick to point out that without one they could not participate in such scheme.

When asked more generally about future developments in freight consigning, strong feelings were expressed regarding police harassment which lead to delays and often necessitated the donation of gratuities to the police. It was also widely felt that there was a need to reduce unfair competition, both from Afghan truck operators who tended to drive large Mercedes trucks and often did not pay for their route permits, and from state subsidised NLC vehicles. A smaller proportion of agents felt that the reduction or removal of district permits and taxes such as Octroi (a tax on the loading and unloading of goods) or the '12 West Rule' (a restriction on the movement of lorries in towns) were a priority. The idea that more lorry parks should be established on the outskirts of towns was also suggested by a number of the agents surveyed.

4. SUMMARY AND CONCLUSIONS

Structured interviews were held with 188 freight consignors and 237 freight forwarding agents in a number of major towns in Pakistan between February and May, 1986. The survey of consignors was largely concerned with establishing what mode was used to consign freight and on what basis this modal choice was made. The survey of freight agents attempted to establish the way in which agents brought freight consignors and freight transporters together and the methods they used to deal with freight consignments. Both surveys sought opinions on future developments within the freight industry.

One third of the consignors stated that delivery time was the most important factor in the choice of modes to deliver inputs and outputs; fear of damage to goods was also a major concern, but cost was the most important

factor for only 10 percent of the consignors.

Almost all of the freight consigned for the industrial firms interviewed was contracted out to private 'hire and reward' operators, often through a freight agent. Over 85 percent of the freight moved for the consignors was in 2-axled rigid trucks; only 4 percent of all freight was transported in containers. The railways were little used by those interviewed due to delays, extra charges incurred in loading and unloading at rail depots, and concern about damage to goods.

An unusual feature of the freight industry in Pakistan revealed by the survey was that 'own account' trucking operations were extremely rare amongst the consignors. One third of the consignors did own vehicles but these were only used for local deliveries. Problems of staff and vehicle management coupled with the ready supply of private operators were stated as the main disincentives to operating vehicle fleets. It was felt that the economic efficiency of the private 'hire and reward' sector in part explained this phenomenom; also the low degree of product and vehicle specialisation in Pakistan's freight haulage industry has meant few firms need to operate their own tailor-made vehicles.

The vast majority of freight consignments dealt with by the agents were transported by private 'hire and reward' truck operators although 43 percent of the agents did own one or more trucks. Bedfords were by far the most popular make of truck employed by the agents followed by Japanese makes such as Nissan and Hino.

Vehicle availability was remarkable. Ninety percent of all agents were able to obtain a vehicle either of their own or from a private operator to consign a load within one hour; those agents who had their own vehicles took less than half an hour on average to get a truck. This further illustrates the competitive and flexible nature of the private transport market in Pakistan.

Over 90 percent of freight agents had a working telephone; business was largely obtained through personal callers and by telephone. There was little evidence that long-term contracts were an important source of business, though it was common practice for agents to offer a regular service to certain destinations.

There was little opposition to the introduction of larger trucks amongst freight agents and the response was highly favourable amongst consignors of whom only 6 percent stated that truck and trailer access to their premises was a problem. The idea of a centralised freight booking scheme designed to reduce empty running met an enthusiastic response from both freight agents and consignors.

62 percent of drivers intercepted in the Roadside Interview Survey had obtained their present consignment through a freight forwarding agent and over half of the consignors maintained regular contacts with an agent. Clearly freight forwarding agents play a critical role in the movement of freight over Pakistan's road network. It would therefore appear that any attempts to improve the efficiency of their operations would have beneficial knock-on effects for the freight industry as a whole.

5. REFERENCES

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APPENDIX 1. Freight consignors questionnaire.(1)

Interviewer :
Date :

1. Company name : 2. Main location

3. Type of business :

4. Does the company choose the mode of transport used to deliver your main raw materials ?

   i) Prime considerations in choosing the mode used :

5. Does the company choose the mode of transport used to deliver your finished products ?

   i) Prime considerations in choosing the mode used :

6. How many trucks(specify model)/rail wagons are required for your main inputs and how frequently are deliveries made ?

7. How many trucks(specify model)/rail wagons are required for your main outputs and how frequently are deliveries made ?

8. Give details of particular consignments of inputs and outputs :

   i) Origin or destination of consignment :
   ii) Mode used :
   iii) Typical total transport times :
   iv) Expected tariff (per standard unit weight) :

9. How many containers do you use per month ?

10. Does the company have any transport of its own ?

    Type of vehicles owned : Number of each type :

11. What is the transport owned by the company primarily used for ?

12. If the company owns no transport, why not ?
    On what terms would the company operate transport of its own ?

13. What are the major advantages and disadvantages of owning transport ?

14. What proportion of your inputs are transported by rail ?

15. What proportion of your outputs are transported by rail ?

16. Does the company have access to a rail siding at its main location ?
    How frequently is the rail siding used ?

17. Do you have any long term agreements with transporting companies or freight agents ?

18. What sort of relationship do you have with freight agents ?

19. Can your company accomodate large vehicles, such as tractor-trailer units, on your premises ?

20. How will the introduction of larger trucks into the freight industry in Pakistan affect the operations of your company ?

21. How will the plans to use containers more widely, particularly with trains, affect your operations ?

22. How would the introduction of a computerised booking scheme affect your operations ?

23. Do you have any further comments on the consignment of freight by rail ?

24. Any other comments ?

APPENDIX 2. Freight agents questionnaire.(1)

Interviewer's name :
Date:

1. Agency name : 2. Location :

3. Nature of ownership :
(Single owner/partnership/limited company/public corporation)

4. Does the agency have branches or associated companies elsewhere in Pakistan ?

Number of branches : Main location :

5. What are the main types of freight related business undertaken ?

i) Freight forwarding/consigning - give percentage breakdown by mode :

By road(private) : By NLC :
By rail : By sea :
By air :

ii) Operating own freight transport vehicles :

Type of trucks owned : Number of each type :

iii) Operating a warehouse :

Approximate capacity :

iv) Provision of hire purchase/loan for vehicle purchase :

v) Buying and selling vehicles :

vi) Importer/exporter :

vii) Working as an import clearing agent :

viii) Wholesaler/retailer :

ix) Other(specify) :

6. Does this office have the following services ?
Are they satisfactory (list complaints) ?

i) Working telephone :
ii) Electricity :
iii) Direct postal delivery :

REMAINDER OF INTERVIEW REFERS TO THOSE AGENTS CONSIGNING FREIGHT BY
i) ROAD
ii) RAIL

7. What are the locations of your 3 most important customers :

8. What proportion of business from these customers comes via

telephone : post :
personal callers : telex/telegram :

9. Do you offer a daily service to certain destinations ?

10. What are the 3 most important routes along which goods are consigned from this office, and what are the journey times and usual waiting times for such routes ?

From : To :
Journey time : Waiting time :

11. What are the major types of goods that you consign ?

Main type : Other type :

12. What proportion of all your consignments fit into the following categories ?

less than 1 ton : 1 - 7 tons :
7 - 12 tons(1 Bedford load) : 12 - 20 tons :
over 20 tons :

13. On average, how long does it take you to find a truck for a customer with a full load to transport ?

14. What is the maximum time a customer may have to wait for you to find a truck ?

15. What load types or destinations present you with the most difficulties and why ?

16. i) Do you have any long term contracts to supply transport ?
ii) What proportion of your business do these account for ?
iii) What type of firms are these contracts with ?

17. Do you perceive any difficulties arising from the introduction of longer trucks into Pakistan ?

18. How do you feel about the widespread introduction of containers in Pakistan ?

19. Are there any other aspects of the freight transport industry which you would like to comment on ?

20. Other countries have introduced centralised vehicle booking schemes with the aid of computers which match trucks wanting to go to particular destinations with available loads; agents contact the computer by telephone with information on loads and trucks available.

i) Do you feel there is scope for such a scheme in Pakistan ?
ii) Would you like to see it introduced ?

iii) Would you participate if it were introduced ?
iv) Do you foresee any severe drawbacks with such a scheme ?

(1). Both questionnaires presented in the Appendices differ slightly from the original versions.