CHAPTER 4: CHANGING BUSINESS MODEL OF LOCAL CABLE OPERATOR- ISSUES AND CHALLENGES

4.1 Survey of Local Cable Operators in Ghaziabad DAS area:

Out of the list of 172 cable operators providing services in Ghaziabad as obtained from Entertainment Tax department, survey could be completed for 60 which comes to a sample size of 35 %. The sample was selected with the help of Entertainment Tax department officials of Ghaziabad so as to cover different geographical areas, urban and suburban, affluent and relatively poor, small and big cable operators in terms of number of customers including distributors providing cable services. A meeting was also held in Ghaziabad with about 7 cable operators to understand various issues being faced by them. Officials from the Entertainment Tax department were also present in the meeting. Interactions were also held with 3 major MSO representatives in Kanpur namely Den Ambay (a JV of Den) supplying signals from Kanpur to Allahabad, Jhansi, Unnao, Etawah and Auraiya via leased lines, Siti Cable and Vishal and separately with some LCOs. A meeting was also held with about 15 LCOs and 3 MSO representatives in Unnao, a city which is to be taken up in Phase-III to understand the preparations. Response to questionnaire of about 21 LCOs of Kanpur could also be obtained and have been cited here wherever required to indicate a comparative position. The questionnaire consisted of 41 questions about their business, business model, problems faced, their views about the transition and eliciting their suggestions. It was finalised in consultation with officials of MIB and Dr Sapna Chadah the faculty supervisor. The questionnaire was prepared both in Hindi and English so that response could be elicited as per the comfort of the operator. Copy of the questionnaire is placed at Appendix-I.

4.2 Profile of Cable operators surveyed:

Profile of the 60 Cable operators indicate that almost 75% are individuals whereas 22% are carrying out business as partnership firms

Table 4.1 : Profile of Cable Operator

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Individual	44	73.3	74.6	74.6
	Firm	13	21.7	22.0	96.6
	Company	2	3.3	3.4	100.0
	Total	59	98.3	100.0	
Missing	System	1	1.7		
Total		60	100.0		

Table 4.2 provides the subscriber base of the LCOs surveyed. 33.3% of the LCOs have a subscriber base between 581-960, 31.7% had between 201 to 580, 18.3% had between 961 to 1340. The average subscriber base comes to 800 taking the media value as the distribution is highly positively skewed.

Table 4.2: Subscriber base of LCOs (Binned)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<= 200	1	1.7	1.7	1.7
	201 - 580	19	31.7	31.7	33.3
	581 - 960	20	33.3	33.3	66.7
	961 - 1340	11	18.3	18.3	85.0

1341 - 1720	3	5.0	5.0	90.0
1721 - 2100	2	3.3	3.3	93.3
2101 - 2480	1	1.7	1.7	95.0
2861 - 3240	2	3.3	3.3	98.3
3621+	1	1.7	1.7	100.0
Total	60	100.0	100.0	

Thus the survey covered LCOs within a range of those providing services from 200 consumers to 4000 consumers and a <u>median of 800 consumers</u> as the distribution is highly positively skewed.

4.3 Change in subscriber base due to digitalisation:

Table 4.3 : Change in subscriber base due to introduction of Digital Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Increased	7	11.7	**11.9**	11.9
	No difference	17	28.3	**28.8**	40.7
	Reduced	35	58.3	**59.3**	100.0
	Total	59	98.3	100.0	
Missing	System	1	1.7		
Total		60	100.0		

Thus 59.3% LCOs have faced a reduction in their subscriber base, 28.8% didn't have any change in their subscriber base and only 11.9% faced an increase in their subscriber base after introduction of digital services. This increase could be due to the fact that subscribers which were given

unauthorised connections by line staff were also captured once STB was installed wheras reduction is due to migration of subscribers to DTH services.

In Kanpur 73.7% reported an increase, 10.5% reported no difference, and only 15.8% adecrease in subscriber base.

4.4 Migration of subscribers to DTH services:

The reduction in the subscriber base is largely due to migration of consumers to DTH services after introduction of digital services when they were forced to make a choice between digital cable and DTH.

The response to question on the extent of migration to DTH services is as follows:

Table 4.4 : Extent of migration to DTH services (in %)

			Statistic	Std. Error
percentmigration	Mean		12.18	1.498
	95% Confidence Interval for Mean	Lower Bound	9.19	
		Upper Bound	15.18	
	5% Trimmed Mean		11.13	
	Median		**9.50**	
	Variance		134.627	
	Std. Deviation		11.603	
	Minimum		**0**	
	Maximum		**50**	
	Range		50	
	Interquartile Range		15	
	Skewness		**1.276**	**.309**
	Kurtosis		1.243	.608

Kanpur LCOs reported a migration of only 3% subscribers (median value taken due to positively skewed data) to DTH.

Thus while the extent of migration in individual cases of LCOs ranged from 0% to 50% subscriber base, the median migration is 9.5 % keeping into account the fact that the data is positively skewed. Thus transition of analog to digital cable also brings about increase in the growth rate of the DTH subscriber base. Close to the transition deadline customer is forced to make a choice and weigh the merits of digital cable vs DTH. The TRAI quarterly performance indicators report also supports the present analysis.

Table 4.5 : Pattern of DTH subscriber growth as per TRAI quarterly reports

Performance Indicator Report as on*	DTH Subscriber Base as per TRAI report (in million)*	Addition over previous quarter (in million)	Subscriber growth per month during the quarter (in lakhs)
31.12.2011	44.21		
31.3.2012	46.25	2.04	6.8
30.6.2012	48.45	2.20	7.3
30.9.2012	50.91	2.46	8.2
31.12.2012	54.52	3.61	**12**
31.3.2013	56.5	1.98	6.6
30.6.2013	58.89	2.39	8
30.9.2013	60.71	1.89	6.3

* Source: TRAI Performance Indicators Report, www.trai.gov.in

An analysis of the DTH subscriber numbers released by TRAI for each quarter reveals that the growth rate per month started picking up as the initially notified transition deadline for Phase-I (i.e. 30.6.2012) approached. It further increased in the next quarter as the amended transition deadline (i.e. 31.10.2012) approached reaching its maximum when the transition actually happened during the last quarter of 2012. During the first quarter of 2013 the growth rate fell close to its earlier value as people expected that the deadline for Phase-II (i.e. 31.3.2013) may again get extended. When it did not happen the growth rate of DTH subscribers again picked up in the next quarter. These figures indicate that there is a migration to DTH services when the transition happens affecting the cable service providers adversely.

On the question of reverse migration from DTH to digital cable, 63.2% of the respondents said that none of their subscribers migrated from DTH to digital cable. Another 31.6% said that there has been 1 to 2% addition in their subscriber base due to migration of DTH subscribers. Thus the reverse migration is not significant (Table 4.6).

Table 4.6 : Reverse migration from DTH to digital cable (in %)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	**36**	**60.0**	**63.2**	**63.2**
	1	12	20.0	21.1	84.2
	2	6	10.0	10.5	94.7
	3	1	1.7	1.8	96.5
	5	1	1.7	1.8	98.2
	9	1	1.7	1.8	100.0
	Total	57	95.0	100.0	
Missing	System	3	5.0		
Total		60	100.0		

4.5 Extent of Multi-TV homes:

An analysis of the response to the question on number of subscribers and number of STBs installed reveals that about 14% homes come out to be multi TV homes taking the median value due to the data being highly positively skewed.

Table 4.7 : Extent of Multi TV homes

			Statistic	Std. Error
multi_tv_homes	Mean		25.43	4.773
	95% Confidence Interval for Mean	Lower Bound	15.88	
		Upper Bound	34.98	
	5% Trimmed Mean		20.48	
	Median		**14.00**	
	Variance		1.367E3	
	Std. Deviation		36.973	
	Minimum		0	
	Maximum		220	
	Range		220	
	Interquartile Range		39	
	Skewness		2.892	.309
	Kurtosis		12.234	.608

In Kanpur the extent of multi TV homes comes out as negligible.

4.6 High Definition STB penetration:

Only 13 out of 60 cable operators reported seeding of High Definition STB which was in most cases much less than even 1% of the STB installed. From the consumer survey (para 5.8) Mostly the Basic (Vanilla) STBS have been seeded.

4.7 Subscription of Basic Service Tier only:

87.9% of the LCOs reported that for 96% to 100% STBs the subscriber has opted for packages instead of Basic Service Tier. Rest 12.1% only reported that 15% to 100% of the STBs have only BST subscriptions. The detailed break up may be seen in the following spss frequency table.

Table 4.8 : percent_BST_STBs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	39	65.0	67.2	67.2
	1	8	13.3	13.8	81.0
	2	1	1.7	1.7	82.8
	3	2	3.3	3.4	86.2
	4	1	1.7	1.7	**87.9**
	15	1	1.7	1.7	89.7
	29	1	1.7	1.7	91.4
	50	1	1.7	1.7	93.1
	82	1	1.7	1.7	94.8
	88	1	1.7	1.7	96.6
	100	2	3.3	3.4	100.0
	Total	58	96.7	100.0	
Missing	System	2	3.3		
Total		60	100.0		

4.8 Exercise of a-la-carte option :

Table 4.9 : Extent of exercise of alacarte choice

Percent of STBs with alacarte option with an LCO		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	44	73.3	78.6	78.6
	1	2	3.3	3.6	82.1
	2	3	5.0	5.4	87.5
	3	1	1.7	1.8	89.3
	6	1	1.7	1.8	91.1
	7	1	1.7	1.8	92.9
	8	1	1.7	1.8	94.6
	12	1	1.7	1.8	96.4
	13	1	1.7	1.8	98.2

	50	1	1.7	1.8	100.0
	Total	56	93.3	100.0	
Missing	System	4	6.7		
Total		60	100.0		

78.6% cable operators reported that none of their subscribers has exercised a-la-carte choice. Another 19.6 % reported 1-13% STBs as having subscriptions on a-la-carte basis. Only 1 cable operator reported exercise of a-la-carte option on 50% of his STB base. A look at the Package Authorisation Form of DEN MSO explains the phenomenon. Some channels like Food Food, Zee Khana Khazana, ZeeQ, and some regional channels like Udaya TV, Surya TV, Kiran TV, K TV, Sun TV and Gemini TV are being offered only on a-la-carte basis and not included in any of the packages. Thus in addition to subscribing for the package such channels have to be added on an a-la-carte basis only. While the form mentions a -la-carte rates of various pay channels, no where does it mention that instead of subscribing for the packages the subscriber can also select individual channels and pay accordingly. It does not have any space to indicate the sum total of subscription price as per a-la-carte selection. The Hathway subscription form available on its website www.hathway.com is better as it clearly mentions that a la carte selection can be made and provides space for calculating monthly subscription based on a la carte selection. The siticable Subscriber Application Form available on www.siticable.com also clarifies so and provides enough columns for the consumer to understand that such an option is available.

Most of the cable operators in their responses to the question on problems and suggestions have pointed out to the fact that while the government advertisement says that you can pick and choose channels you want to watch, packages are being thrust upon subscribers by the MSOs, and the consumer is not being allowed to exercise the a-la-carte choice. It is however noted that even if the subscriber opts for a mix of FTA and pay channels, the minimum he can be charged can go upto Rs 150 (excluding taxes) as per TRAI. Adding an incidence of 12.36% ST it comes to 168, and further adding 25% Etax say Rs 42, the total adds upto Rs 210 which is the minimum required to be paid in UP if a consumer wants to watch pay channels. A pay channel consumer of UP thus is required to pay at least double the E Tax paid by a Delhi consumer.

4.9 Status of filling of CAF Forms:

An analysis of the replies to the question on the percentage of subscribers who have filled CAF forms reveals the following details:

Table 4.10 : Status of CAF Forms

			Statistic	Std. Error
Q9. Number of Consumers who have filled CAF	Mean		90.70	2.032
	95% Confidence Interval for Mean	Lower Bound	86.63	
		Upper Bound	94.77	
	5% Trimmed Mean		93.17	
	Median		**97.50**	
	Variance		247.807	
	Std. Deviation		15.742	
	Minimum		11	
	Maximum		100	
	Range		89	
	Interquartile Range		15	
	Skewness		-2.938	.309
	Kurtosis		11.121	.608

Thus CAF Forms of about 97.5% subscribers (taking the median value as the data is highly negatively skewed) in ghaziabad have been filled and are in the process of getting fed into the SMS. Only 1 LCO reported a value (i.e. 11%) less than 50%, 31.6 % reported between 50 to 90%, and 20% reported 90-99 %, and 46.7% reported 100% filling up of CAF Forms. The preactivated STBs which were earlier allowing the subscriber to view the entire bouquet at the rates they were paying earlier, are now being limited according to packages opted by the consumer unless they increase subscription rates according to the package opted leading to consumer complaints. In Kanpur about 99 % CAF Forms have been filled.

In response to the query as to why there has been a delay in filling up of CAF Forms, the breakup of LCO response is as follows:

Table 4.11 : Reasons for delay in filling up of CAF

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Didn't have time	11	18.3	18.6	18.6
	Not Aware	34	56.7	57.6	76.3
	Consumers didn't cooperate	13	21.7	22.0	98.3
	Any Other Reason	1	1.7	1.7	100.0
	Total	59	98.3	100.0	
Missing	System	1	1.7		
Total		60	100.0		

Thus about 57.6% have stated that they were not even aware that such forms are required to be filled. Another 22% said that consumers didn't cooperate and only 18.6% said that they didn't have time. Non filling of the CAF forms in time has been a major setback in the attempts to bring in transparency. Thus government and the Regulator need to ensure that the public awareness drive both for LCOs and consumers for Phase-III and IV highlights the requirement and importance of filling the CAF.

In Kanpur 65% reported that they didn't have time, 30% that they were not aware, and 5% said the consumers didn't cooperate.

4.10 Generation of Public awareness about the switchover:

Compilation of response to the query on publicity measures by LCO is as follows:

Table 4.12 : Methods adopted by LCO for apprising consumers about the need of installing a Set Top Box

		Count	Column N %
by Pamphlet Distribution-LCO Publicity	**Yes**	**13**	**21.7%**
	No	47	78.3%
by Advertisements on Local Cable Channels	**Yes**	**28**	**46.7%**
	No	32	53.3%
Door to door contact of consumers	**Yes**	**49**	**81.7%**
	No	11	18.3%

Thus about 82% of the LCOs resorted to door to door contact to apprise the consumers, and only 22 % resorted to distribution of pamphlets. About 47% also reported advertising on local cable channels which perhaps means satellite TV channels as there are no local cable channels operational in UP now.

Compilation of the response to the query on publicity measures by MSO is as follows:

Table 4.13 : Measures taken by MSO for publicity before the switchover date

		Count	Column N %
by Pamphlet Distribution	**Yes**	**15**	**25.0%**
	No	45	75.0%
by Advertisements on MSO cable channels	**Yes**	**56**	**93.3%**
	No	4	6.7%
by Advertisements in Newspapers	**Yes**	**11**	**18.3%**
	No	49	81.7%
by sending bulk SMSs	**Yes**	**2**	**3.3%**
	No	58	96.7%

Thus MSOs way of generating awareness has been through advertisements on TV channels, followed by pamphlet distribution and advertisements in newspapers in that order.

4.11 How arrangements for STBs was made by the LCO:

Table 4.14 : Mechanism of payment for obtaining STBs from MSO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Upfront payment of full amount to the MSO prior to issue to LCO	22	36.7	36.7	36.7
	MSO provided it without any upfront payment which was to be deposited after collection from consumers	17	28.3	28.3	65.0
	MSO provided it on Part upfront payment and part to be deposited later	20	33.3	33.3	98.3
	Any Other	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

Thus 36.7% made full upfront payment for the STBs, 33.3% lifted STB making part payment and the remaining 28.3% didn't make any upfront payment. From this it is apparent that MSOs interest was in ensuring seeding of their STBs and hence they helped the MSOs who might not have been financially well off to get STBs.

In Kanpur 81% reported full upfront payment, 14.3% part upfront payment and only 4.8% said that they didn't have to make any upfront payment.

4.12 Investment by LCO in upgrading their network:

Table 4.15 : Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
percent_inv_persubsc	35	58.3%	25	41.7%	60	100.0%

Table 4.16 : Descriptives

			Statistic	Std. Error
percent_inv_persubsc	Mean		211.59	36.533
	95% Confidence Interval for Mean	Lower Bound	137.35	
		Upper Bound	285.84	
	5% Trimmed Mean		191.24	
	Median		**109.17**	
	Variance		4.671E4	
	Std. Deviation		216.130	
	Minimum		**16**	
	Maximum		**851**	
	Range		836	
	Interquartile Range		209	
	Skewness		1.561	.398
	Kurtosis		1.640	.778

25 LCOs out of 60 didn't indicate the amount of investment made by them in upgrading their network though they did answer the next query on how they arranged the funds.

From the responses of balance 35 who reported investments, it comes out that an investment of about Rs 109 has been made per subscriber in upgrading the network. The range of investment varied from Rs 16 per subscriber to Rs 851 per subscriber. Investment per subscriber in Kanpur is even low and comes to about Rs 48.

Replies to the query on how the money for improvement of network has been arranged are as follows:

Table 4.17 : Sources of money arranged for improvement of Cable Network

		Count	Column N %
Funds/Equipment was provided by MSO (in part or full)	**Yes**	**1**	**1.7%**
	No	58	98.3%
Arranged from personal savings	**Yes**	**37**	**62.7%**
	No	22	37.3%
Arranged by way of Loans from Bank	**Yes**	**3**	**5.1%**
	No	56	94.9%
Arranged by way of loans from private financiers	**Yes**	**12**	**20.3%**
	No	47	79.7%

Thus the money for upgrading the network has been arranged by the LCOs themselves without any assistance from the MSOs. Mostly (62.7%) it has been arranged from personal savings with the LCO followed by (20.3%) arranging money from private financiers. Only in 5.1% of the cases bank finance has been availed. In Kanpur corresponding percentages come out as 71.4%, 23.8% and 4.8%.

The investment per subscriber shows wide variation. This is a pointer to the fact that in the absence of cheap finance from the banks people limited their investments to their own savings. Those who didn't have any saving resorted to private financiers which must have cost dearly to them. Thus making available bank finance for cable operations is a challenge for the government to handle and provide for if the network upgradation to the desired extent is to happen.

4.13 Availability of STBs:

Table 4.18 : Extent of shortages of STBs during changeover

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Severe Shortage	15	25.0	25.0	25.0
	Some Shortage	24	40.0	40.0	65.0
	No Shortage	21	35.0	35.0	100.0
	Total	60	100.0	100.0	

The above Table reveals that despite advance notification of dates, shortages of STBs still remained an issue . 25% of the respondents reported severe shortage of STBs whereas 40% said that there was some. 35% reported no shortage. In Kanpur corresponding figures are 9.5%, 28.6% and 61.9% .

4.14 Status of Installation of Subscriber Management System by the MSO:

Both the MSOs, Den and Hathway supplying signals to Ghaziabad have their Headends in Delhi along with the location of the SMS. The issue thus now is not whether the SMS has been installed but what is the status of its access provided to the LCOs as is evident from the following responses:

Table 4.19 : Status of access to centralised SMS provided by MSO to LCO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LCO has been permitted to view the details and no power to modify the data base	35	58.3	58.3	58.3
	LCO has been permitted to not only view the details but also allowed to modify any details in the data base	2	3.3	3.3	61.7
	LCO has been permitted to not only view the details but also allowed limited power to modify the data base	8	13.3	13.3	75.0
	LCO has no access to the SMS database	15	25.0	25.0	100.0
	Total	60	100.0	100.0	

In Kanpur, power to view only with no power to modify was reported by 23.8%, power to view and limited power to modify by 47.6% and no access by 28.6%. From my interactions with MSO representatives from Den, Hathway , Siti Cable and another MSO Vishal (Kanpur) it became apparent that except for Siti cable which has set up a state of the art SMS and given complete rights to its LCOs to modify any details in the SMS through an internet based facility, the other MSOs have either given no access or limited access to either view or modify the database, to activate or deactivate a STB, to modify the packages, to fill in collection details and generate billing etc. While Siti cable allows its

LCOs to retain all consumer related documentation like CAF and PAF forms, others believe in retaining all documentation with themselves.

4.15 Billing and Collection from the subscriber:

Table 4.20 Status of supply of printed monthly bills to subscribers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	51	85.0	85.0	85.0
	Yes	9	15.0	15.0	100.0
	Total	60	100.0	100.0	

Table 4.21 : System of Generation of Bills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MSO is generating printed Bills and handing over the printed bills for collection to LCO	2	3.3	3.4	3.4
	MSO has provided online access of SMS to LCO, and LCO is generating the bills	2	3.3	3.4	6.8
	MSO provides the Billing information in soft copy and LCO generates the Bills	4	6.7	6.8	13.6
	Old system of collecting is still continuing	51	85.0	86.4	100.0
	Total	59	98.3	100.0	
Missing	System	1	1.7		
Total		60	100.0		

85% of the LCOs (94.5% in Kanpur) reported that they are not giving any printed bills to the customers despite clear cut stipulations of TRAI to provide the same. Even the balance 15% who did report that they are providing bills are not providing any computerised bills generated from the SMS. 86.4% LCOs reported that old system of billing is still continuing. About 7% reported that MSO provides billing information in soft copy. Den sends a monthly subscriber billing report to its distributors which make it further available to their MSOs in soft copy. This only gives billing information as per package opted. As it does not contain past payment details by each subscriber, the LCO has to maintain another database to correlate the past payment and generate the outstanding. The Entertainment Tax department also keeps on making efforts to procure billing information from MSOs, which turns out to be different from the one collected from the LCOs and hence the disputes continue with regard to tax liability and on the money collected. Den has only authorized its LCOs to activate, deactivate or retrigger an already installed STB. Again if a STB is changed/replaced a fresh PAF form is required to be filled and sent. If a defective STB is replaced at the consumer premises then a request is required to be sent either by sms to the MSO regional office or call centre to activate the new STB and deactivate the old one which is time consuming and affects efficiency. Delay in replacement and activation leads to disenchantment amongst consumers who want quick restoration of their services. There is also a limited authority given to add channels but then PAF is required to be filled and sent to the MSO within a week.

This centralisation has not only increased the paperwork and record keeping for the LCO but also exposes him to consumer wrath who becomes reluctant to pay at the time of monthly collection and presses for reduction of monthly charges as reported by many cable operators.

Another problem is that while the monthly billing information provided by MSO has started showing billing as per packages opted, LCOs are still not able to press the consumer beyond a point to pay accordingly for fear of loosing him to DTH. LCO cannot show the uncollected amount as arrears recoverable, as the consumer will never pay them. This will need to be recognised both by the MSO and the entertainment tax department. If they start pressing LCO to pay tax as per the amount billed as per packages opted, the LCO will simply not be able to pay as his collections are far less than those shown. It will take some time for the consumer to reconcile to the billing status as per packages opted.

Another problem is that at the time of transition, the message given to subscriber has been that you install the STB and you will continue to view the same channels as before and continue paying the same rate. This seems to have been done with a view to tackle consumer resistance to shell out money for STB. Now LCO is finding himself in a difficult position to tell them that they will have to shell out more. To force the consumer to pay as per package, sometimes his signals are cut off, sometimes the channels are blocked by the MSOs/LCOs which again becomes a cause of resentment amongst the consumers.

Thus while the setting up of SMS has been a step towards bringing transparency in cable operations, transparency envisaged can only happen when the LCOs get complete access to view and modify SMS information. Of course some safeguards will be required to be built to protect the interests of the MSOs. The access provided should be focussed to reduce paperwork for the LCO, to improve his operational efficiency and to facilitate quick redressal of consumer grievances.

4.16 Revenue Sharing regime between MSO and LCO:

Except for one LCO the rest 59 LCOs reported that they have entered into a written agreement with the MSO. In Kanpur however 68.4% reported that they have not signed any written agreement.

Table 4.22 : Revenue Sharing arrangement between LCO and MSO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	As prescribed by TRAI	2	3.3	3.4	3.4
	Different from TRAI as mutually agreed	42	70.0	72.4	75.9
	Compelled to sign the agreement however I don't agree with the revenue share	14	23.3	24.1	100.0
	Total	58	96.7	100.0	
Missing	System	2	3.3		
Total		60	100.0		

Except for 2 LCOs, the rest 56 (97%) reported that the revenue sharing is as per the mutual agreement. As per discussions with LCOs and MSOs and as per their responses it comes out that that as of now LCOs are made to pay a fixed amount (Rs 55+12.36% Service Tax=Rs 62) per active STB to the MSO irrespective of their collections. In Kanpur this fixed payout is Rs 50+ST=Rs 56 per STB. The grievance of the LCOs also is that while for the second and third

STB they have to offer 50% discount to the subscriber, there is no such discount being provided to them by the MSO who is charging them at a fixed rate of Rs 62 per STB for all STBs. While the PAF of the MSO does mention that discounted plan (50%) are available on maximum of two additional TV sets and seeks details of second and third STB/viewing card also, no discounts are being offered by the MSO in practice. This is partly due to a serious problem in linking the various STBs in the household to the same subscriber. Firstly if the STBs have been installed at different times, then many a times PAF forms get filled in different subscribers name from the same family and there is a problem in linking them to the same household/subscriber ID. Had the LCO been given access to the database he could have rectified these defects easily. Now he has to complete a lot of paper formality to get the same done. Even then the discounted rates will be applicable if consumer has subscribed to same package on all TV sets. If different packages are subscribed on different TV sets full rates will be charged. The discount is not applicable on the interim arrangement of Rs 62 per STB, it becomes applicable only after the billing and collection starts as per package. LCO as he is to deal with the customer, has to offer the discount. Let us presume that he gets Rs 100 for the second STB, his margin on the second STB would virtually be negative as 62 will be taken away by MSO, 25 Rs by E Tax, leaving a balance of Rs 13 which is not even sufficient to meet his expenses. There is also lack of clarity in what is going to be the future revenue sharing regime and LCOs are wary that if the MSOs start forcing them to enhance the share, their margins will further reduce and they may be forced to go out of business or sell their business to others.

Table 4.23 : LCOs' perception on a reasonable revenue sharing arrangement for a viable business

		Count	Column N %
As recommended by TRAI if no agreement is reached	Yes	17	35.4%
	No	31	64.6%

Out of 48 LCOs who responded, 64.6% felt that TRAI stipulation on revenue sharing for BST and Pay channels is not reasonable. They were further asked to indicate as to what in their view will be a reasonable revenue share regime between MSO and LCO for a viable business. The responses are varied and are compiled as follows:

Table 4.24 : Models proposed by LCOs for sharing of revenue between MSOs and LCOs

	N	Minimum	Maximum	Mean	Std. Deviation
Percentage Share of LCO for BST for viable business	37	45	80	63.78	9.384
Percentage Share of MSO for BST for viable business	37	20	55	36.22	9.384
Percentage Share of LCO for Pay Channels for viable business	37	40	80	60.27	11.177
Percentage Share of MSO for Pay Channels for viable business	37	20	60	39.73	11.177
Valid N (listwise)	37				

Thus for BST the revenue share being demanded by LCOs is in the ratio 64:36 between LCO and MSO as against 45:55 stipulated by TRAI. For Pay channels it is demanded to be 60:40 instead of 35:65 stipulated by TRAI. For Pay channels the demand of the LCOs is quite unreasonable as MSOs are required to pay subscription charges to broadcasters also. It is also seen that

BST subscribers are negligible as compared to pay subscribers hence even if the BST revenue share is increased it won't help the LCOs much.

4.17 Number of TV channels being provided:

It is strange that most of the LCOs seemed clueless about the exact total number of channels being provided from the MSO Headend on the cable network or their breakup into FTA and Pay channels and filled only some estimated figures in their replies. It can, however, be broadly inferred from the replies that earlier they were providing between 90-100 channels and now they are providing between 270 to 300 channels. As per information received from DEN, they are providing a total of 270 channels on their service, of which 101 are FTA channels and 169 are pay channels. The consumer thus has certainly got access to a wider choice of channels in various genres and languages.

4.18 Provisioning of Local Cable Channels:

From the replies to the questionnaire, it is strange to note that none of the cable operators is running any local cable channels in its cable service. Even prior to digitalisation also barring 3 LCOs the remaining were not running any cable channels. This is partly due to technical reasons and partly due to government regulations.

The technical problem of insertion of content at the LCO end is that all channels are now required to be encrypted. Encryption requires installation of costly equipment (Rs 3-4 lakh per channel) and authorisation from the proprietor of encryption systems like NDS, Nagravision, Irdeto which is not easy to get. Second option is to insert the channel at the LCO end and send it to the headend for encryption and putting the encrypted channel back into the cable service. As number of LCOs connected to the big MSOs is large and only a limited local channels can be provided on trunk lines going till the distributor. Earlier when no encryption was required, MSOs used to provide blank frequencies on which the LCOs could run their own channels from their end.

The second major reason is that running a local cable channel has become unviable after a UP Govt notification. Vide its letter no. 30/pra. ka.-03/D-1/2011-12 dated 3.4.2012 and in clarification of the provisions contained in UP Cinema (Regulation of exhibition by means of video) Rules as amended in 2011, it was laid down that an additional license fee of Rs 100 per TV per annum will have to be paid by LCO. A license fee of Rs 2400/ per channel per annum will also have to be paid by the LCO. Thus an average LCO with 800 connections would have been made to pay 800x100=80000 towards additional license fee and 2400 towards license fee totalling 82400/- per annum to the government. The income from local advertisement is generally very small as compared to the license fee liability and hence none of the cable operators finds it viable to run a cable channel. While the administration is happy that the nuisance created by cable channels, who used to telecast local news bulletins also sometimes leading to tension and law and order problem in the city, has gone and has dried up an important source of additional revenue for the cable operator. The local news content and movies shown (many a times pirated) by LCOs used to be an important attraction to keep the consumer hooked to cable services as such content was not available on DTH services.

4.19 Sources of Revenue for LCO:

In their responses cable operators have unanimously responded that they do not get any share in the carriage fees or placement fee received by the MSOs. Only one MSO, Siticable has come up with a model of giving some share in the carriage/placement fee receipts to cable operators while switching over from fixed fee to revenue share regime. The rest have not even mentioned any such plans.

Table 4.25 : Impact on Average Revenue Per User (ARPU) due to digitalisation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Increased	7	11.7	12.7	12.7
	Remained Same	17	28.3	30.9	43.6
	Decreased	31	51.7	56.4	100.0
	Total	55	91.7	100.0	
Missing	System	5	8.3		
Total		60	100.0		

The replies to the query indicate that the LCOs have interpreted the ARPU to mean profit. This is also evident from the consumer responses as the monthly payout of each subscriber has certainly gone up. Thus for 56.4% of the LCOs their profit margin has gone down, while for another 30.9% it has remained the same. Only 12.7% LCOs reported an increase in their margins.

4.20 Manpower/Training:

Table 4.26 : Comparison of manpower employed by LCO pre and post DAS

			Statistic	Std. Error
Q31. How many people had you employed Now (direct/indirect)	Mean		4.17	.445
	95% Confidence Interval for Mean	Lower Bound	3.28	
		Upper Bound	5.06	
	5% Trimmed Mean		3.76	
	Median		**3.00**	
	Variance		11.904	
	Std. Deviation		3.450	
	Minimum		1	
	Maximum		17	
	Range		16	
	Interquartile Range		3	
	Skewness		1.906	.309
	Kurtosis		3.728	.608
Q30. How many people had you employed earlier (direct/indirect)	Mean		4.55	.480
	95% Confidence Interval for Mean	Lower Bound	3.59	
		Upper Bound	5.51	
	5% Trimmed Mean		4.07	
	Median		**4.00**	
	Variance		13.845	
	Std. Deviation		3.721	
	Minimum		1	
	Maximum		18	
	Range		17	
	Interquartile Range		3	
	Skewness		2.259	.309
	Kurtosis		4.998	.608

From the compilation of responses as above, it is evident that while 4 persons (taking the median as the data is positively skewed) were employed by the LCOs prior to digitalisation, the number has gone down to 3 (taking the median as the data is positively skewed) after digitalisation. Interaction with cable operators and replies to questionnaire revealed a few reasons for it. The technical skill level of the employees required to handle the cable service has risen and people of that skill level are not easily available. This has led to an increase in the wage rate being demanded which has gone up from earlier Rs 3000-4000 per month to 7000-8000 per month. Earlier the lineman and the collection staff were able to hide some consumers from the LCO and pocket the money collected from such consumers themselves. With every STB now being encrypted it is no longer possible for them to make illicit money. Hence they themselves do not find it lucrative enough to continue. Non availability/shortage of trained manpower has been highlighted by a number of LCOs in their responses.

In Kanpur however the LCOs reported an increase in employment from 3 people per LCO (taking the median value) to 4 people (median value).

Table 4.27 Arrangements of training made by LCOs for their staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		5	8.3	8.3	8.3
	3 month training	1	1.7	1.7	10.0
	as needed	1	1.7	1.7	11.7
	by MSO	8	13.3	13.3	25.0
	by self	24	40.0	40.0	65.0
	no need	3	5.0	5.0	70.0
	not arranged	17	28.3	28.3	98.3
	to computerise all details	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

The compilation of above responses, indicates that mostly the cable operators trained their employees at their level only, with a few getting help from MSOs to train their employees.

Table 4.28 : Training arranged by MSO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		4	6.7	6.7	6.7
	No	39	65.0	65.0	71.7
	Yes	17	28.3	28.3	100.0
	Total	60	100.0	100.0	

The difference in response to similar query above might be due to interpretation of the second question as referring to training given to LCO instead of staff. A safe conclusion can be that while the percentage of LCOs trained by MSOs is higher, there is very little contribution of MSOs in training their staff.

Table 4.29 : Views of LCO on requirement of training

	Response of the LCO	Frequency	Percent	Valid Percent	Cumulative Percent
Valid		14	23.3	23.3	23.3
	mso should think	1	1.7	1.7	25.0
	no idea	1	1.7	1.7	26.7
	no need	9	15.0	15.0	41.7
	short duration training required	5	8.3	8.3	50.0
	should be given in a nearby place	12	20.0	20.0	70.0
	time to time	2	3.3	3.3	73.3
	training required about STB and Signal	16	26.7	26.7	100.0
	Total	60	100.0	100.0	

Thus most of the cable operators felt that short duration training is required to be arranged for their staff at a nearby place on the working of the STB and addressing common problems, about its repair and maintenance, about the network equipments and signal.

4.21 Public Grievance Redressal: preferred methodology of lodging a complaint

The responses to the question, *'Q35. How do your consumers lodge a complaint for cable services? (Rank from 1 to 5 in descending order of method adopted)'* were compared using one sample t-test. The result is as follows:

Table 4.30 Methods adopted by consumers for lodging complaint

	N	Mean	Std. Deviation	Std. Error Mean
by calling the Toll free number provided by Cable Operator	27	**2.96**	1.091	.210
by calling the Cable operator as earlier	60	**1.03**	.181	.023
Through the website of Multi System Operator (MSO)	22	**4.00**	.976	.208
by contacting the nodal officer of MSO/Cable operator	23	**3.70**	1.020	.213
Others	51	**2.43**	.878	.123

Value in the column N indicate the number of LCOs who filled responses for that option. Thus while call centres have been set up by various MSOs in compliance to directions of TRAI, the most preferred way of lodging complaints by consumers continues to be by calling up the LCO on phone, followed by personally contacting his office (reflected in others category). Calling up the toll free number is the third preferred option with lodging complaints on website and contacting the nodal officer as being the least preferred. MSOs have complied with the TRAI stipulation of setting up a website, toll free number for consumer care, published manual of practice, consumer charter and manual containing instructions for operating STB.

Exactly same ranking emerges from responses of LCOs in Kanpur.

4.22 Type of grievances:

The response to the question, *'Q36. Grievances relate to which of the following areas? (Rank from 1 to 7 in descending order of method adopted)'* were compared using one sample t-test. The result is as follows:

Table 4.31 : Type of consumer grievances

	N	**Mean**	Std. Deviation	Std. Error Mean
Problem with malfunctioning of STB or its remote	59	**1.58**	1.021	.133
Problem with Picture quality(pixilation)	51	**3.00**	1.414	.198
Problem with audio quality	46	**4.65**	.948	.140
Problem with not getting subscribed channels	50	**3.26**	1.468	.208
Problem with billing	42	**4.55**	1.864	.288
No signal	52	**3.38**	1.484	.206
Others	38	**6.79**	.664	.108

Thus the most common grievance is the *problem with STB or its remote*. This issue has also been raised separately by most of the cable operators in their comments. MSOs seem to be replacing STB /ensuring repair without any extra charges as mandated by TRAI as made applicable by TRAI as also under the activation charge scheme. However the problem lies in the delay in replacement/ repair or on activation of a replaced/repaired box. One of the main reasons attributed is the inbuilt power supply becoming defective due to external power supply fluctuations so frequent in a place like Ghaziabad. One of the steps being taken by MSOs to address this issue is supplying STBs with external power adaptors so that repair/replacement costs during warranty period are brought down and only the power supply (adaptor costing about Rs 100) needs to get replaced. But problems continue with the STBs already seeded.

Another problem highlighted by the LCOs in Ghaziabad is that MSOs have not allowed them to retain some activated boxes as service box. In Kanpur however MSOs mentioned that they have allowed retention of 5% boxes as service boxes on which no fee is charged. In the absence of any authorisation with the LCO to activate a new box at his end, it many a times becomes a long drawn process to get the replacement box activated. Consumer deducts charges for the duration the services get suspended while LCO does not get any relief from the MSO towards LCOs payout per STB. Giving complete access of the SMS to the LCO and making available some service boxes would facilitate immediate replacement with a service box during the period customer STB is sent for repair or replacement. LCO does not want to retain an activated box at his end for service purposes as it gets counted by MSO and government towards their recoverables.

At the second place is the *problem with picture quality and pixilation*. This is due to the poor signal quality or poor quality of the STB if persistent and points to the need of putting in further investments in upgrading the network as explained later in this para.

The problem with *not getting subscribed channels* falls at third place. On cross checking with LCOs and MSOs it has been explained that due to pre-activated STB seeded earlier consumers continued to get channels as being viewed by them earlier. Now there authorisation is being adjusted according to the packages opted by them and hence such complaints are now increasing and may increase further.

At the fourth place is the *'No signal'* problem which is happening mostly either due to power failure or cable cutting which takes time to restore. In the analog cable regime even if the signal strength was weak the TV channels will still be visible with snow or lines appearing on the TV screen, but customer would continue to get some programming. To maintain signal strength an amplifier is required to be placed between 20-25 houses in coaxial cable . This amplifier is an active equipment and needs power supply. Earlier even if these amplifiers were not placed or placed at larger cable lengths/ consumers the cable signal would still work. Power supply for these amplifiers used to get arranged from subscriber premises themselves. After digitalisation the STB requires a particular signal strength below which the picture breaks or signal not found message starts appearing. Thus the consumer complaints on this account arise. To redress such complaints LCO is required to make investments in not only placing the amplifiers at the desired distance as per norm, the LCO is also required to supply 90V power supply through the coaxial cable carrying digital signals and therefore required to make further investments in power supply and creating a power back up. While a power supply for 20-25 amplifiers may cost Rs 4000-5000 a power back up through a generator or inverter may prove costlier (25000-3000 for a 1200 VA inverter). Finding safe place to house the power supply/back up and amplifiers is also becoming costlier. Earlier with coaxial cable it was easy to restore signal by joining the coaxial cable manually just by twisting the wires. Now wherever there are optical fibres, the joints can only be made through a specialised equipment called a splicing machine costing about Rs 3 lakhs. MSOs have made their own arrangements by purchasing or hiring splicing machines for restoring signal in their lines upto LCO. However if it happens in LCO network then he is at the mercy of the MSO/distributor, and if he does not help, arranging a splicing machine may take time leading to long outages of signal and consumer aggression. With reduced margins and lack of availability of cheap sources of credit coupled with consumer resistance to increase tariffs the LCOs problems have only increased. Arranging cheap credit for the cable business is thus a matter which the government will have to deliberate upon and take up with the banks.

In Kanpur also problem with STB and its remote emerges as the number one problem followed by problem in picture quality at the second place as in Ghaziabad. At the third place comes the no signal problem, problem of not getting subscribed channels at fourth, problem with audio quality and billing occupying fifth and sixth place.

4.23 LCOs perception on merits and demerits of digitalisation:

Table 4.32 Views of LCO on requirement of digitalisation

		Count	Column N %
Q40. Do you feel digitalisation of cable services is required for maintaining their competitiveness and provision of better services to consumers?	Yes	33	66.0%
	No	17	34.0%

Out of 50 LCOs who responded to the question , 66% felt that digitalisation is required for maintaining their competitiveness and provision of better services to consumers. In Kanpur however 100% LCOs feel that digitalisation is required.

Table 4.33 : LCOs' view on gains from digitalisation

		Count	Column N %	% (Kanpur)
I will now be in a better position to compete with DTH players	Yes	2	3.4%	52.6%
I have upgraded my network in the process	Yes	11	18.6%	63.2%
Customers are happy with getting more channels and better viewing experience	Yes	29	49.2%	89.5%
transparency in subscriber base has reduced my disputes with MSO	Yes	5	8.5%	52.6%
Technical assistance from MSO has enabled me to improve my services	Yes	21	35.6%	52.6%
Pilferage in collection by collection agents/staff has reduced/stopped	Yes	34	57.6%	47.6%
I am now able to prevent the release of unauthorised connections by lineman/subordinate staff	Yes	34	57.6%	73.7%
My ARPU has increased	Yes	5	8.5%	21.1%

Thus the biggest advantage which the cable operators in Ghaziabad perceive of the digitalisation process is that release of unauthorised connections by their line staff (57.6% LCOs) or concealment of revenue collections by their field staff (57.6% LCOs) has reduced or stopped. 49.2% felt that their customers are happy with more channels and better viewing experience. 35.6% did feel that technical assistance from the MSO has helped them improve their services. Only 18.3% felt upgradation of their network during the process as an advantage of digitalisation. Only 8.5% felt that transparency has reduced their disputes with MSO. This perception is largely due to the fact that disputes still continue on the number of active STBs installed at consumer premises. This is also partly due to lack of authorisation to LCO to modify or amend the SMS info. Only 3.3% feel that they will now be in a better position to compete with DTH players. The reason for such a low response is easily discernible. Despite digitalisation consumers are still facing a number of problems with STB and signal and picture quality. There is also a significant threat of migration of consumers to DTH platform as the monthly subscription levels are getting raised and nearing the DTH levels.

LCOs of Kanpur seem to be much more aware and in better agreement with perceived benefits of digitalisation. This is also evident from the fact that all of them support digitalisation to be able to compete with DTH.

Table 4.34 : LCOs' view on major disadvantages of the switchover

		Count	Column N %	% (Kanpur)
Lost my own identity as a service provider	Yes	22	36.7%	44.4%
Unable to provide local cable channels of my own	Yes	13	21.7%	50.0%
My subscriber base has reduced	Yes	45	75.0%	23.5%
Tax liability has increased	Yes	59	98.3%	88.9%
My ARPU has reduced	Yes	39	65.0%	50%

Thus as the major disadvantages, an overwhelming 98.3% of the LCOs referred to was the increase in their tax liability, followed by 75% pointing to reduction in their subscriber base. 36.7% were of the view that they have lost their identity as a service provider and have become mere agents of the MSO. 65% of the LCOs said their ARPU has come down which actually refers to their margins and not monthly subscription.

In Kanpur only 23.5% LCOs state a reduction in their subscriber base. This is also supported by the fact that unlike Ghaziabad where there has been a migration of 9.5% subscribers to DTH, only 3% migrated to DTH in Kanpur.

4.24 LCO views on problems faced during switchover:

Views of LCO were solicited on the major problems faced in the way the switchover has been managed. The problems highlighted by them can broadly be categorised as follows:

1) There is a lot of problem in repair and replacement of faulty STBs.

2) There should be different rate options for STB and the STB costs are too high.

3) Lot of time was required to be spent on consumer to convince him about installation of STB.

4) While the consumer deducts payment for non receipt of service due to non replacement of faulty STB , relief is not given to LCO by MSO.

5) MSO does not give proper information or help or listen.

6) Problem with signal remained, so could not satisfy the customer.

7) Number of customers has reduced due to increase in cost.

8) Poor STB quality.

9) LCO should have activation deactivation rights.

10) MSO charges are different in different districts, no uniformity.

11) STB price has not remained same, it is continuously increasing.

12) No training about digitalisation was given therefore problems increased.

13) Terms and conditions of STB are not known till date.

14) Package rates are high.

15) Expenses have increased.

16) Weak signal and signal disruptions is routine.

4.25 Suggestions given by LCOs:

LCO of Ghaziabad and Kanpur also made certain suggestions in respect of policy and procedure adopted as also to get rid of problems adopted during the transition and for managing it in a better way.. The suggestions highlighted by them can broadly be categorised as follows:

1) Cable wire should be protected and laid underground.

2) Signal should improve.

3) Quality of STB should improve.

4) Repair and replacement of STB should be expedited.

5) LCO should get access to view entire database and activate and deactivate the STB.

6) Package prices should be brought down. Cable packages should be priced lower than DTH packages.

7) MSO should give correct information and provide help to LCO when needed.

8) Entertainment Tax rates are too high and should be brought down. Tax rates should be uniform across states.

9) Better cooperation from administration is required

10) MSO rates charged from LCO should be reduced so that customer rates can be brought down.

11) Customer should be enabled to make his own package.

12) LCO should be given proper briefing about digitalisation.

13) Channel names should be in Hindi .

14) Better revenue share for LCO.

15) Delivery of signals through wifi to subscriber should be explored so that problem of cable cutting is not there.

16) Courses in ITI and Polytechnic should be undertaken to train people

17) Steps should be taken to protect LCO from monopoly of MSO

4.26 Status of preparedness for digitalisation in Unnao District:

In Unnao Nagar Palika area signals of only Den Ambay MSO with its headend at Kanpur are available. Earlier this MSO was providing analog signals to the

LCOs in Unnao. Now analog signals have been stopped altogether and only digital signals are being made available, though the deadline for digitalisation here is still in Sept 2014. Their cable operations thus suddenly came to a close and they are trying to revive them by beginning to install STBs. STBs are being installed at Rs 999 per STB plus Rs 100 which LCOs are charging for installation. STBs are being lifted on upfront payment of activation charges. They have been told by MSO that if they want signal, Rs 56 per STB will have to be paid to the MSO. No agreement format has been provided to them or signed with them and the LCOs have already started seeding STB. They mentioned that they are finding it extremely difficult to convince the consumer to shell out Rs 1100 for STB. LCOs were unaware of the fact that STBs can also be acquired by availing STP schemes mandated by TRAI. They seemed relieved in case such schemes were available. While they didn't criticise the MSO in the meeting for fear of further non cooperation from the MSO, but separately they complained that they are being exploited due to complete monopoly of the MSO and requested the Government to do something to protect them from the monopoly over signals. They also complained about complete lack of transparency on the part of MSO. They also complained that they were not being told as to whether after payment of Rs 999 customer becomes the owner or not.