



South Asia

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	- QUALITY OF SERVICES (BASIC & CELLULAR)	
	- CUSTOMER SATISFACTION SURVEY (BASIC & CELLULAR)	



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1. INTRODUCTION

TUV South Asia Pvt. Ltd., 321, Solitaire Corporate Park, Bldg. No. 3, 2nd Floor, Chakala, Andheri (E), Mumbai has been awarded the contract on 19th December 2005 by Telecom Regulatory Authority of India for Conducting an Objective Assessment of the Quality of Service of basic service and cellular mobile service vis-a-vis the Quality of Service benchmarks prescribed by the Authority and a subjective customer survey to assess the customer perception of the service, in terms of the Regulation on Quality of Service of Basic and Cellular Mobile Telephone Services , Dated 1st July ,2005.



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2. EXECUTIVE SUMMARY

2.1 PREFACE

TUV South Asia is entrusted by TRAI to carry out

- **Objective Assessment of QOS provided by service provider**

Seven Basic and twelve Cellular operators were covered in the first quarter year 2006. The Objective Assessment included Audit of sample exchange (including customer care centre), Helpline for Basic operator and audit of sampled MSC (including customer care centre), POI Congestion, Helpline and Drive Test for Cellular Operators.

For QOS audit of Basic Service, TUV Officials visited 394 Basic Telephone Exchanges (94 Urban and 300 Rural exchanges) while auditing 50 Basic Operators (licensee). Further, the operation of 102 Cellular mobile service operators, were verified as a part of this exercise.

In the case of Basic operators, a sample mix of Urban and Rural exchanges (that are representative of the circle) was selected across 10% of SDCAs (Short Distance Charging Areas) of Operators.

- **Customer Satisfaction Survey**

The subjective assessment involved survey of customer's satisfaction level for all the seven basic and 12 cellular operators spread over the current operating circles. The methodology and sampling followed for quarter 1 was as described in the terms of reference dated 14th July 2005.

During this quarter, a large sample of about 20832 basic and 35046 cellular service subscribers were surveyed to assess their satisfaction with basic and cellular services. Telephonic as well as personal interviews were carried out for this exercise.

For Rural subscribers, 100% of the subscribers were personally interviewed. In case of Urban Subscriber, 75% were personally interviewed and 25% were interviewed telephonically. Subscribers were selected based on their age, gender and usage basis.

PMR for the period September 2005 was considered as reference for coverage during execution and PMR for March 2006 was considered for comparison of data.



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2.2 ANALYSIS

2.2.1 QUALITY OF SERVICE OF CELLULAR MOBILE SERVICES

2.2.1.1 MSC AUDIT

In case of cellular services out of the 18 benchmark parameters requirements as per regulation July 2005, most of the operators are having positive results with regard to **Service Access Delay, Call Drop rate and Call Set up Success rate** as **100%, 99% and 97%** of the operators meeting the benchmarks of these parameters respectively.

In respect of the parameter **Accumulated Down Time for community isolation**, the **benchmark for which is less than 24 Hrs**, the highest duration of **Accumulated Down Time for community isolation** is noticed in **BSNL - UP West (882.52); Bharti TN (298.04); MTNL Mumbai (286 Hrs) and BSNL Maharashtra (162.03Hrs)**.

In case of the parameter **Call Drop rate** (benchmark <3%), the highest call drop rate is noticed in BSNL - Haryana (19.3%).

However the performance of service providers relating to the parameters **SDCCH congestion and Billing complains per 100 bills** is a matter of concern as only 69% and 70% of the operators are meeting the benchmarks of these parameters respectively.

In case of **SDCCH Congestion**, the performance of Tata in Kolkata (10.6%), Tata - Haryana (14.23%), Tata - Gujarat (5.45%), Tata – UP E (5.05%) and Reliance Info in Haryana (5.2%), Reliance Info - UP East (5.05%), Reliance Info - Orissa (7.7%) and Bharti – Bihar (5.35%) are way below the benchmark of <1%.

In the case of parameter **TCH Congestion (benchmark <2%)**, the TCH congestion rate is noticed at Spice Karnataka, Reliance Telecom - MP and Bihar as 17.45%, 11.53% and 11.02% respectively, which is quite high.

In case of **Billing Complaints per 100 Bills issued (benchmark <0.1%)**, a significant higher percentage of billing complaints are observed in case of Tata – Maharashtra (1.99%), Tata – Haryana (1.59%), Tata – Punjab (1%), Tata – Mumbai (0.84%), Tata – HP (0.77%), Dishnet – WB (1.51%) and Dishnet – Orissa (1.02%) and BSNL – J&K (1.1%).

2.2.1.2 DRIVE TEST

Drive test was conducted to verify parameters like Call Drop Rate, Call Setup Success Rate, Blocked Call Rate and % Connection with good voice quality. MTNL Mumbai, BSNL Gujarat and BSNL Tamilnadu are found not meeting benchmark for any of the above parameters.



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2.2.1.3 INTER OPERATOR CALL ASSESSMENT

Inter Operator calls were made to verify the **Point of Interconnect Congestion** and it is observed that in the 2 circles of MTNL POI congestion is noticed at interconnection with 5 operators out of a total interconnection with 10 operators (50%). In Spice circles, POI congestion is there at the interconnection with 4 operators out of 11 (36.36%). Similarly, in Hutch circles this is 13 out of 74 (17.56%), in BSNL 15 out of 95 (15.78%), in Idea 7 out of 40 (17.5%), in Tata 11 out of 97 (11.34%), in Bharti 8 out of 105 (7.6%), and in Reliance Infocomm 6 out of 97 (6.18%).

The POI Congestion Value collected from MSC's of different operators was 87 out of 519 (16.76%) for Bharti, 6 out of 41 (14.63%) in case of Spice, 30 out of 261 (11.49%) in case of Hutch, 33 out of 307 (10.75%) for Idea, 5 out of 279 (1.79%) for BSNL, 33 out of 431 (7.66%) in case of TATA and 37 out of 345 (10.72%) in case of Reliance.

No relation could be established between the data of congestion assessed practically by inter operator call and that obtained from MSC.

2.2.1.4 HELP LINE

Calls were made to verify the IVR response and operator response time. It is observed that operator response within 60 and 90 seconds is met by only 61.54% and 50% of operators respectively.

2.2.2 QUALITY OF SERVICE OF BASIC SERVICE

2.2.2.1 EXCHANGE AUDIT

In case of basic service, out of the 18 benchmark parameter as per QoS Regulation July 2005, the performance of all the audited licensee (50) are significantly below the benchmark parameters.

Moreover, parameters, **Provision of Telephone after registration**, none of the operators is meeting the benchmark except Tata - Maharashtra, **Grade of Service – Junction between Tax to Tax, Closure requests, Request for shifting and Additional Facility requests** are not met by at least 80% of the operators.

Also 43% of the operators are not meeting benchmark relating to **Fault repair by next working day**, 36% of the operators are not meeting the benchmark relating to **Metering and billing credibility** and 45% of the operators are not meeting the benchmark relating to **Call Completion Rate - Local Network**.



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2.2.2.2 HELP LINE

Calls were made to verify the **IVR response and response time to the customer for assistance by operator**. The performance in B & C Circles with respect to the parameter Operator Response within 60 and 90 seconds is significantly beyond the benchmark.

2.2.3 CUSTOMER SATISFACTION SURVEY FOR MOBILE

Customer perception related to operator's service was assessed for seven defined parameters through 29 questions for cellular and 30 questions for basic service subscriber. On an all India basis, 59.64% of the operators are not meeting the benchmark criteria for all the parameters taken together. The findings in respect of major parameters are given below:

Overall Customer Satisfaction level: (Benchmark >95%)

- The customer perception of overall customer satisfaction level is poor in all the circles, only 10 licensees out of a total of 105 licensees are meeting the benchmark of >95%.
- In respect of metro circles, in Delhi only Bharti and Hutch have attained the overall customer satisfaction level. The lowest overall customer satisfaction level is with MTNL Delhi (88%). In Mumbai only Tata has achieved the benchmark. The lowest is with Hutch (87%). In Kolkata and Chennai none of the operator is meeting the benchmark. In Metro Circle as a whole, the achievement level is ranging between 83-93%.
- In A circles, in Maharashtra only, all the operators (except BPL {Hutch} which was not surveyed) are meeting the benchmark. The lowest overall customer satisfaction level of all the operators is in Gujarat circle. As a whole in A Circle, the achievement level is ranging between 83-94%.
- In category B circles, only Idea, Kerala and Reliance - Punjab are meeting the overall customer satisfaction level. In Kerala and Punjab the overall customer satisfaction level of all other operators are near the benchmark. However, in West Bengal this level is significantly lower among all the operators. In B Circle as a whole, the achievement level is ranging between 71-94%.
- In C circles none of the operators has achieved the benchmark. The level of overall customer satisfaction is in the range of 78% to 92%.

Network performance (Benchmark >95%):

- The customer perception of the parameter **network performance** is poor, only 2 out of 105 operators are meeting the benchmark.
- In Metro Circles, **only Tata Mumbai** is meeting the benchmark. As a whole, the achievement level is ranging between 68.4-93.1%.



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- In A circles **none of the operators** is meeting the benchmark. The performance of all the operators in Maharashtra is better as compared to other circles with their performance in the range of above 90%. As a whole, the achievement level is ranging between 63-91.5%.
- In B circles though **none of the operators** is meeting the benchmark, the performance is better in Punjab and Haryana circles and the lowest performance is in West Bengal circle. As a whole, the achievement level is ranging between 59.6-94.1%.
- In C circles only **Bharti in Himachal Pradesh** is meeting the benchmark. Overall the performance of the operators in Himachal Pradesh is better and the lowest performance is in Orissa circle where the customer perception of network performance is in the range of 50% to 65%. The overall achievement level is ranging between 52.2-87.4%.

Billing (Benchmark >90%):

- The survey was conducted separately for post-paid and pre-paid customers. In the case of post-paid segment overall 79% of the operators have achieved the satisfaction level of >90% and in the pre-paid segment the number of operators who achieved this level is 86%.
- In Metro circles all the operators are meeting the benchmark for pre-paid except Bharti, Mumbai (88%) and BSNL, Calcutta (89%). In the case of post-paid only Delhi MTNL (87%) is not meeting the benchmark.
- In A circles, in the case of pre-paid all the operators are meeting the benchmark, except in Gujarat circle where only Tata is meeting the benchmark. In post-paid all the operators are meeting the benchmark, except Hutch (BPL) – Tamilnadu (86%).
- In B circles in the pre-paid segment 8 out of 38 operators are not meeting the benchmark (ranging between 63-89%) while in the post-paid segment 11 operators are not meeting the benchmark (ranging between 66-89%).
- In C circles out of 20 operators surveyed 9 operators are not meeting the benchmark (ranging from 70-89%) for post-paid segment while all are meeting the benchmark for pre-paid segment.

None of the service providers are meeting the benchmark for the Parameters **Maintainability (benchmark >95%)** in Metro Circles (achievement level ranging between 26-82%) and C Circles (achievement level ranging between 3-89%) and **Help Line service (benchmark >90%)** in B circle (achievement level ranging between 50-86%) and C circle (achievement level ranging between 33-78%).

2.2.4 CUSTOMER SATISFACTION SURVEY FOR BASIC SERVICE

In case of basic service on an average 38 out of 53 (71.50%) service providers are not meeting the benchmark for the 7 parameters on customer perception of service. This means that on an average 28.50% of the operators are meeting the benchmark. However, the circle



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wise performance for the operator with regard to the benchmark on an average is very poor in Metro (20%) and C Circles (12%) as compared to the performance of the operators in A Circles and B Circles (36%).

Overall Customer Satisfaction: In respect of Metro Circles, A Circle and C Circle, none of the operators are meeting the benchmark of overall satisfaction level i.e. > 95%. The achievement level is ranging between 71-91%, 70-92% and 30-70% for Metro, A & C Circles respectively. In B Circle, **Kerala BSNL & Kerala Reliance only** are meeting the benchmark. For rest of the operators in B Circle, achievement level is ranging between 55-87%.

Maintainability: None of the operators is meeting the benchmark in Metro, A and C Circle. The achievement level is ranging between 16-87%, 0-80% and 0-17% for Metro, A & C Circles respectively. In A Circle, Karnataka – Bharti is the worst with 0% satisfaction level. In C circle, BSNL-HP, BSNL-NE and BSNL-J&K are the worst ones with 0% satisfaction level. In B Circle, only 2 operators namely **Kerala BSNL and Kerala Reliance** are meeting the benchmark. For rest of the operators in B Circle, achievement level is ranging between 3-77%.

Billing Services: In Metro Circles, only 3 (out of 11) operators namely MTNL – Mumbai, Tata – Mumbai and Reliance – Mumbai are meeting the benchmark. Achievement level is ranging between 63-89.80%. In A Circle, position is comparatively better as only 4 operators (out of 14) namely Tata – Gujarat, BSNL – Gujarat, BSNL – TN and Bharti - TN are not meeting the benchmark. Achievement level is ranging between 66.81-81%. The position is further better in B Circle with 7 operators (out of 20) namely Bharti, BSNL and Reliance in MP, BSNL in UP E, Bharti, BSNL in UP West and Reliance in UP West are not meeting the benchmark. The achievement is ranging between 62.80-82.80%. In C Circle, only 2 (out of 8) namely BSNL – HP and BSNL – J&K are meeting the benchmark with the achievement ranging between 22.20-55.20%.

Helpline Services: In Metro Circles, only one operator namely Mumbai – Tata is meeting the benchmark. The achievement range is between 57.90-89.70%. In A Circle 5 (out of 14) audited operators namely BSNL-AP, Tata - AP, Reliance - AP, Reliance – Gujarat and BSNL – Karnataka are meeting the benchmark with the achievement ranging between 69.80-89.50%. In B Circle, only one operator namely BSNL-Haryana is meeting the benchmark. The achievement is ranging between 48.70-89%. In C Circles, none of the operators were meeting the benchmark with the achievement level ranging from 22.80-77.80%

The Approach & Methodology adopted for the QoS and CSS is attached at the end of this report as Annexure.



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3. SUMMARISED FINDINGS (ALL INDIA BASIS)

The first Quarter involved the period January – March 2006. In the first quarter, 7 Basic and 12 Cellular Operators (Source: TRAI PMR Dt.Sep. 2005) were required to be covered.

Due to various constraints (details described in Summarised Finding (SF) Tables SF-1 & SF-2), One Basic operator (Shyam) and Two (Aircel – Tamil Nadu and Reliable Internet Services – Kolkata) could not be covered in the first quarter.

The 7 basic operator's were required to be audited by visiting the Operating circles and conducting the following activity:

- Audit of sampled Exchange's
- Helpline
- Customer Care Centre.

The 12 Cellular Operator's were required to be audited by visiting the Operating Circles and conducting the following activity.

- Operator Assisted Drive test.
- Audit of Sampled MSC's.
- POI Congestion
- Helpline
- Customer Care Centre

In the first quarter, no independent drive test was conducted as no request was received from TRAI.



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3.1 QOS - CELLULAR SERVICES

3.1.1. MSC AUDIT – CELLULAR SERVICES

3.1.1.1. COVERAGE

Table SF1 : Listed Active Operator's

Type	Nos.of Operators	Name Of Operators
Cellular (GSM+CDMA)	12 as per PMR	BPL Cellular
	14 in Operation	Idea Cellular
		BSNL
		Bharti Cellular
		Reliance CDMA
		TATA
		Hutch
		Spice Communications
		Aircel
		Reliance GSM
		MTNL
		Reliable Internet Services

Was not covered during Q1

Note 1: Although not listed in the PMR, HFCL and Dishnet wireless were covered in case of Cellular services. This was based on the information supplied by the Operator.

Note 2: Reliable Internet service was not audited because it is launched recently and has low subscriber base. Aircel was not audited as it was confused to be merged with Hutch.

Note 3: However Aircel was covered in Customer Satisfaction Survey.



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Table SF2 : Listed Active circles - Cellular:

Sr.Nos	Service Provider	Metro Circle	"A" Circle	"B" Circle	"C" Circle	
01	Bharti	Delhi	AP	Haryana	Assam	
		Mumbai	Gujarat	Kerala		
		Chennai	Karnataka	MP	Bihar	
		Kolkata	Maharashtra	Punjab		
			TN	Rajasthan	HP	
			UP (E)	NE		
			UP(W)	J&K		
			WB	Orissa		
02	Hutch	Delhi	AP	Haryana	Not Operating	
		Mumbai		Punjab		
		Chennai	Gujarat	Rajasthan		
		Kolkata	Karnataka	UP(E)		
				UP(W)		
				Kerala		
03	TATA- CDMA	Delhi	AP	Haryana	Bihar	
		Mumbai	Gujarat	Kerala		
		Chennai	Karnataka	MP	HP	
		Kolkata	Maharashtra	Punjab		
				TN	Rajasthan	Orissa
				UP (E)		
				UP(W)		
		WB				
04	Idea	Delhi	AP	Haryana	Not Operating	
			Gujarat	Kerala		
			Maharashtra	MP		
				UP(W)		
05	MTNL	Mumbai	Not Operating	Not Operating	Not Operating	
		Delhi				
06	Relinace -CDMA	Delhi	AP	Haryana	Bihar	
		Mumbai	Gujarat	Kerala		
		Chennai	Karnataka	MP		



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Sr.Nos	Service Provider	Metro Circle	"A" Circle	"B" Circle	"C" Circle
			Maharashtra	Punjab	
				Rajasthan	HP
				UP (E)	
				UP(W)	Orissa
		Kolkata	TN	WB	
07	BPL	Mumbai	Maharashtra	Kerala	Not Operating
			TN		
08	Aircel	Chennai	TN	Not Operating	Not Operating
09	Reliable Internet Services	Kolkata	Not operating	Not Operating	Not Operating
10	Reliance GSM	Not operating	Not operating	WB	Assam
					Bihar
				MP	HP
					NE
					Orissa
11	Spice Communications	Not Operating	Karnataka	Punjab	Not Operating
12	BSNL	Chennai	AP	Haryana	Assam
			Gujarat	Kerala	
		Kolkata	Karnataka	MP	Bihar
			Maharashtra	Punjab	
			TN	Rajasthan	HP
				UP (E)	NE
				UP(W)	J&K
				WB	Orissa
13	HFCL	Not Operating	Not Operating	Punjab	Not Operating
14	Dishnet	Not Operating	Not Operating	WB	Assam
					NE
					J&K
					Orissa



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Total Required as per PMR	12	24	30	46	23
Total Covered	12	21	23	40	18
%age Coverage	100%	87.5%	77%	87%	78%
Operators Circle Coverage				102/123x100 = 83%	
Attributed reasons	Tata Chennai: Date was scheduled but did not turn up. Aircel Chennai: TUV Confused their merger with Hutch. Reliance GSM Orissa: Operator was not ready for the drive test. BSNL Bihar : MSC upgradation, hence written request for postponement given. Rest All : Dates not confirmed by the operators				

Was not covered during Q1

Not listed in PMR but was covered



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3.1.1.2 - CELLULAR SERVICES OBSERVATIONS

Table SF3: Parameter wise performance of the CMSPs

Parameters	Metro Circle		A Circle		B Circle		C Circle		All circles		% Operator s meeting Benchm ark
	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchma rk	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	Total Operators audited	No of operator not meeting benchmar k	
Accumulated Down Time of Community Isolation	21	2	21	6	42	5	19	2	103	15	85.43
Call Setup Success Rate	21	1	20	1	42	0	19	1	102	3	97.06
Service Access Delay	17	0	15	0	37	0	17	0	86	0	100
SDCCH/ Paging cong	19	4	22	9	42	13	16	5	99	31	68.68
TCH cong	19	1	21	1	42	4	16	6	98	12	87.75
Call Drop rate	21	0	21	0	42	1	19	0	103	1	99.02
% Connections with Good Voice Quality	18	3	20	3	36	8	15	2	89	16	82.02
POI congestion	12	4	10	8	35	26	10	7	67	45	32.84
Billing Complains per 100 bills issued	17	6	19	4	34	13	19	5	93	28	69.89
%of Billing Complaints resolved within 4 weeks	16	2	18	2	36	0	17	2	88	6	93.18
Period of refunds/payments due to customers from the date of resolution	13	3	19	2	29	1	16	0	77	6	92.20

This does not cover the operators who have not provided the data (DNP), wherein No incidences have been observed (NI) and Audit Not Done (ND). IVR within 20 Seconds, IVR within 40 Seconds, Voice within 60 Seconds, Voice within 90 seconds parameters not covered.



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3.1.1.3: CRITICAL ANALYSIS

1. The overall compliance with the benchmark is better in respect of the parameters Service Access Delay (100%), Call Drop Rate (99%), Call Setup Success Rate (97%), Period of Refunds/dues to customers (94.73%).

The parameters, which are of concern, are

- a) **SDCCH Congestion:** 31.32% of the operators audited are not meeting the criteria.
- b) **Billing complaints per 100 bills issued:** 30.11% of the operators audited are not meeting the criteria.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Table SF4:

Parameters	Metro Circles	A Circles	B Circles	C Circles
Accumulated Down Time of Community Isolation (<24 HOURS)	MTNL – Mum (286 hours)	Bharti TN-(298.04Hrs) BPL-mah(64.16 hrs) BSNL-Mah (162.03 hrs)	BSNL - UP (W)- 882.52 hrs	BSNL – Ori (48.7Hrs) Tata – HP (31.8Hrs)
Call Setup Success Rate (>95%)		BSNL – Guj (53.6%)		RTL-Bihar-88.72%
Service Access Delay (9-20SECS)				
SDCCH/ Paging cong (<1%)	Tata – Kol (10.6%),	Tata – Guj (5.45%)	Tata – Har (14.23%) Rel Info – Har (5.2%) Rel Info – UPE (5.05%)	Rel Info – Ori (7.7%) Bharti – Bih (5.35%)
TCH cong (<2%)	BSNL – Kol (3.75%)	Spice – Kar (17.45%)	Rel tel – MP (11.53%)	Rel tel – Bih (11.02%) Rel tel – HP (6.2%) Rel tel – NE (6.46%)
Call Drop rate (<3%)			BSNL – Har (19.3%)	
% Connections with Good Voice Quality (>95%)	BSNL-Chennai 83.77%	BSNL – AP (78%) BSNL – Guj (83.3%)	Dishnet WB-80% BSNL WB-88.09	RTL-Bihar-85.18%
Billing Complains per 100 bills issued (0.1%)	Tata – Mum (0.84%) Idea – Del (0.48%)	Tata – Mah (1.99%)	Dishnet – WB (1.51%) Tata – Har (1.59%) Tata – Pun (1%)	Tata – HP (0.77%) BSNL – J&K (1.1%) Dishnet – Ori (1.02%)



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Parameters	Metro Circles	A Circles	B Circles	C Circles
%of Billing Complaints resolved within 4 weeks (100%)	Tata-Mumbai-(93.9%)	Tata-Mah (90.3%)		BSNL – HP (0%)
Period of refunds/payments due to customers from the date of resolution (<4 WEEKS)	Tata – Kol (50.4%) BSNL – Kol (0%)	Tata – Mah (71.47%)		

3.1.2. INTRA AND INTER OPERATOR CALL ASSESSMENT (POI)

3.1.2.1: COVERAGE

Practical calls were made for all possible combinations for checking POI Congestion.

The observations have been tabulated in the ensuing pages of this report.

3.1.2.2 : PERFORMANCE

Table SF 5: Performance

Circle/ Operators	Bharti	Hutch	Tata	Idea	MTNL	BSNL	Rel Info	Rel Tel	Dishnet	HFCL	Spice
Metro	1/19	1/19	4/19	1/5	5/10	0/9	1/19	NO	NO	NO	NO
A Circle	3/25	2/20	1/25	0/15	NO	1/25	2/25	NO	NO	NO	2/5
B Circle	4/40	10/35	4/40	6/20	NO	12/40	1/40	NO	NO	0/6	2/6
C Circle	0/21	NO	2/13	NO	NO	2/21	2/13	0/19	0/7	NO	NO
All Circles Total	8/105	13/74	11/97	7/40	5/10	15/95	6/97	0/19	0/7	0/6	4/11
% Congestion	7.6	17.56	11.34	17.5	50	15.78	6.19	NO	NO	NO	36.36

“NO” means not operating

The first figure relates to number of interconnections established with other operators in all the circles where congestion is there. The second figure relates to total number of interconnections (not number of POIs) established with other operators in all the circles. For example, for Hutch in Metro circles they are having interconnection with 5 operators each in Delhi, Mumbai and Chennai and 4 in Kolkata, totalling to 19.

3.1.2.3: CRITICAL ANALYSIS



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POI Congestion was found to be extremely high for MTNL (50% of every possible combination) and Spice (36.36% of every possible combination)

1. Amongst all their operating circles of Bharti in “A” Circle (12% of possible combination), “B” Circle (10% of possible combinations), congestion was high.
2. Amongst all their operating circles of Hutch in “A” Circle (10% of possible combination), “B” Circle (28% of possible combinations), congestion was high.
3. Amongst all their operating circles of Tata in “Metro” Circle (21% of possible combination), “C” Circle (15.38% of possible combinations), congestion was high.
4. Amongst all their operating circles of Idea in “Metro” Circle (20% of possible combination), “B” Circle (30% of possible combinations), congestion was high.
5. Amongst all their operating circles of BSNL in “B” Circle (30% of possible combination) congestion was high.
6. Amongst all their operating circles of Rel Info in “C” Circle (15% of possible combination) congestion was high.

For rest of the operators i.e. Rel Tel, Dishnet and HFCL, no congestion was noticed.

3.1.3 HELPLINE SERVICES – QOS CELLULAR

3.1.3.1 COVERAGE

Calls were made to call centre of 72 operators out of the 123 operating at present.



South Asia

3.1.3.2 PERFORMANCE

Parameters	Metro Circle		A Circle		B Circle		C Circle		All circles		% Operators meeting Benchmark
	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	Total Operators audited	No of operator not meeting benchmark	
IVR within 20 seconds	3	0	2	0	0	0	9	2	14	2	85.71
IVR within 40 seconds	2	0	2	0	0	0	9	2	13	2	84.50
Voice within 60 seconds	1	1	2	0	0	0	10	4	13	5	61.53
voice within 90 seconds	1	1	2	1	0	0	9	4	12	6	50

3.1.3.3 CRITICAL ANALYSIS

Operator Response within 60 seconds: 38.5% of the operators audited are not meeting the criteria.

Operator Response within 90 seconds: 50% of the operators audited are not meeting the criteria.

3.1.4 DRIVE TEST

3.1.4.1 COVERAGE

Total no. of drive test required to be conducted was 345.

268 Drive Tests were conducted in the following towns:

Region	Circle	City
West	Maharashtra	Pune, Goa, Satara
West	Gujarat	Ahmedabad, Surat, Anand
West	Mumbai	Mumbai
South	Chennai	Chennai
South	AP	Hyderabad, Vijaywada, Guntur, Warangal Tirupati, Kurnool, Nizamabad
South	Karnataka	Bangalore, Manglore, Mysore
South	Kerala	Attingal, Mahe, Changanasherry
South	TN	Trichy, Madurai, Salem
North	H.P	Shimla, Bilashpur, Kullu, Palampur Dharamshala, Jwalaji
North	Punjab	Jalandhar, Ludhiana, Nawashar, Mohali
North	Haryana	Hisar, Meham, Kaithal, Jind, Bahadurgarh Rori, Jagadri



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Region	Circle	City
North	UP-W	Agra, Meerut, Dehradun, Sardana Hasthinapur, Hapur, Anola
North	UP-E	Lucknow, Unnao, Barabanki, Fulpur Faizabad, Malihabad
North	Rajasthan	Jaipur, Kota, Bundi
North	MP+Chattisgarh	Indore, Ujjain, Hosangabad, Vidisha, Sorver Dewas, Itarsi, Nagda, Badwaha
North	Delhi	Delhi
North	J&K	Jammu, Kathua, Sidhra, Katra, Sambha Udampur
East	WB & A&N	Asansole, Bardhman, Durgapur, Bankura
East	Kolkata	Kolkatta
East	Bihar&Jharkhand	Ratna, Goya, Hazipur, Ranchi, Muzafarpur Fathua
East	Orissa	Cuttack, Bhubaneshwar
East	Assam	Paltan Bazar, Lakhotikia, Kalukori
East	NE	Mawali, Nangthaimai, Umlyngka



South Asia

3.1.4.2 PERFORMANCE

METRO CIRCLES

Parameters / Benchmarks		Delhi						Mumbai						Kolkata				
		Bharti	Hutch	Tata	Idea	MTNL	Rel Info	Bharti	Hutch	Tata	BPL	MTNL	Rel Info	Bharti	Hutch	Tata	BSNL	Rel Info
% Connections with Good Voice Quality	>95%	97.82%	97.11	97.37	95	96.01	99.25	98.92	98.01	96.15	97.31	82.64	99.24	ND	ND	ND	97.31	DNP
Call Drop Rate	<3%	DNP	0	0	0.584	1.78	1.35	0	0	0.78	0	3.6	0.73	ND	ND	ND	0.08	DNP
Call Success Rate		DNP	100	100	98.27	97.10	100	100	100	98.06	100	78.44	100	ND	ND	ND	97.95	DNP
Blocked Calls		DNP	0	0	1.73	2.9	0	0	0	1.94	0	21.56	0	ND	ND	ND	2.05	DNP

		Chennai				
	Mobile	Bharti	Hutch	Tata	BSNL	Rel Info
% Connections with Good Voice Quality	>95%	ND	ND	ND	92.7	99.39
Call Drop Rate		ND	ND	ND	DNP	0
Call Success Rate		ND	ND	ND	DNP	100
Blocked Calls		ND	ND	ND	DNP	0

DNP – Data not provided; ND - Not done



South Asia

A CIRCLES

Parameters / Benchmarks		AP						Gujrat						Karnataka					
		Bharti	Hutch	Tata	BSNL	Reliance	Idea	Bharti	Hutch	Tata	BSNL	Reliance	Idea	Bharti	SPICE	BSNL	Reliance	Hutch	Tata
% Connections with Good Voice Quality	>95%	97.07	ND	99.97	75.56	99.81	ND	DNP	DNP	DNP	82.09	99.34	ND	ND	98.76	ND	99.62	ND	ND
Call Drop Rate		0	ND	DNP	DNP	0	ND	DNP	DNP	2.675	7.11	1.27	ND	ND	1.68	ND	0	ND	ND
Call Success Rate		100	ND	DNP	DNP	100	ND	DNP	DNP	96.06	88.12	100	ND	ND	96.63	ND	100	ND	ND
Blocked Calls		0	ND	DNP	DNP	0	ND	DNP	DNP	3.94	11.88	0	ND	ND	3.37	ND	0	ND	ND

Parameters/ Benchmarks		Maharashtra						Tamil Nadu					
		Rel Info	Bharti	BSNL	BPL	TATA	Idea	Reliance	Bharti	Aircel	BSNL	Tata	Hutch (BPL)
% Connections with Good Voice Quality	>95%	68.98	100	95.766	98.46	96.72	96.96	DNP	DNP	ND	DNP	DNP	DNP
Call Drop Rate		1.282	0	1.453	1.346	DNP	2.08	2.57	2.1	ND	8.91	1.129	1.63
Call Success Rate		91.99	99.6	97.883	98.61	DNP	99.7	95.36	94.53	ND	73.56	87.57	97.96
Blocked Calls		0.471	1.4	2.12	1.33	DNP	0.31	4.64	5.47	ND	27.46	12.43	2.04

DNP – Data not provided; ND - Not done



South Asia

B CIRCLES

Parameters/ Benchmarks		Haryana						Kerala						MP					
		Hutch	Idea	Reliance	BSNL	Tata	Bharti	Hutch (BPL)	Bharti	BSNL	Tata	Idea	Reliance	Rel tel	Idea	Reliance	BSNL	Tata	Bharti
% Connections with Good Voice Quality	>95 %	97	96.16	99.56	97.46	81.88	98.53	97.05	98.69	92.57	98.6	98.61	100	95.33	99.10	99.14	100	97.55	97.77
Call Drop Rate		0	0	0.68	1.4	1.5	2.05	0	0	5.26	0.75	0	0	0.416	DNP	1.18	DNP	0	DNP
Call Success Rate		100	100	99.33	98.59	98.45	97.91	100	99.53	97.22	100	100	100	99.25	DNP	99.60	DNP	100	DNP
Blocked Calls		0	0	0.67	1.41	1.55	2.09	0	0.47	2.78	0	0	0	0.75	DNP	0.40	DNP	0	DNP

Parameters/ Benchmarks		Punjab							Rajasthan					UP (E)				
		Spice	Hutch	Reliance	BSNL	Tata	HFCL	Bharti	Hutch	Bharti	BSNL	Tata	Reliance	Hutch	Bharti	BSNL	Tata	Reliance
% Connections with Good Voice Quality	>95%	99.18	99.02	99.5	96.54	97.68	N/A	99.40	DNP	DNP	ND	ND	ND	DNP	98.74	DNP	ND	98.55
Call Drop Rate		0	0	0.83	0	2.94	N/A	0	2.7	0	ND	ND	ND	1.56	DNP	0.98	ND	1.92
Call Success Rate		100	100	100	99.4	99.37	N/A	100	100	99.24	ND	ND	ND	98.98	DNP	91.35	ND	98.92
Blocked Calls		0	0	0	0.6	1.63	N/A	0	0	0.76	ND	ND	ND	1.02	DNP	9.65	ND	1.08

Parameters / Benchmarks		UP(W)						West Bengal						
		Hutch	Idea	BSNL	Tata	Reliance	Bharti	Rel tel	Hutch	Reliance	BSNL	Tata	Dishnet	Bharti
% Connections with Good Voice Quality	>95%	96.86	97.11	94.13	ND	99.05	97.6	ND	98.6	100	97.36	ND	92.56	91.54
Call Drop Rate	≤3%	0.27	0.5	0	ND	1.33	DNP	ND	DNP	DNP	0.90	ND	DNP	DNP
Call Success Rate	95%	99.72	97.58	99.65	ND	99.88	DNP	ND	DNP	DNP	96.85	ND	DNP	DNP
Blocked Calls		0.18	2.42	0.35	ND	0.12	DNP	ND	DNP	DNP	3.15	ND	DNP	DNP

DNP – Data not provided; ND - Not done



South Asia

C CIRCLES

Parameters / Benchmarks		ASSAM				BIHAR					HP				
		Rel tel	Bharti	Dishnet	BSNL	Rel tel	Reliance	Tata	BSNL	Bharti	Rel tel	Reliance	Tata	BSNL	Bharti
% Connections with Good Voice Quality	>95%	97.82	98.96	DNP	99.5	DNP	98.93	DNP	DNP	DNP	100	99.52	97.01	79.5	99.49
Call Drop Rate		0	0	0	2.22	DNP	0.58	0	0	DNP	0.03	0	0.25	0.93	0
Call Success Rate		100	98.92	100	100	DNP	100	100	100	DNP	98.66	100	99.83	93.48	100
Blocked Calls		0	1.08	0	0	DNP	0	0	0	DNP	0	0	1.6	6.52	0

Parameters/ Benchmarks		NE				J & K			ORISSA					
		Rel tel	Bharti	Dishnet	BSNL	Dishnet	Bharti	BSNL	Rel tel	Reliance	Tata	Dishnet	BSNL	Bharti
% Connections with Good Voice Quality	>95%	95.47	100	ND	ND	99.49	DNP	99.3	ND	ND	ND	98.18	100	DNP
Call Drop Rate		1.67	DNP	ND	ND	0	0	0	ND	ND	ND	0	DNP	0
Call Success Rate		98.33	DNP	ND	ND	100	100	100	ND	ND	ND	100	DNP	100
Blocked Calls		1.67	DNP	ND	ND	0	0	0	ND	ND	ND	0	DNP	0

DNP – Data not provided; ND - Not done

3.1.4.3 CRITICAL ANALYSIS

MTNL Mumbai, BSNL Gujarat and BSNL Tamil Nadu was found not meeting any of benchmark parameters



South Asia

3.2 QOS – BASIC SERVICES

3.2.1 EXCHANGE AUDIT (INCLUDES CUSTOMER CARE CENTRES)

3.2.1.1.: COVERAGE

The following operators were covered in Quarter 1:

Type	Nos.of Operators	Name Of Operators
Basic	7	MTNL
		BSNL
		Reliance
		Bharti
		TATA
		Shyam
		HFCL

Was not covered during Q1

Table SF7: Circle wise coverage

Sr.Nos	Service Provider	Metro Circle	“A” Circle	“B” Circle	“C” Circle
01	BSNL	Chennai	AP	MP	Bihar
		Kolkata	Gujarat	Chattisgarh	A & N
			Maharashtra	Punjab	Assam
			TN	Rajasthan	HP
			Karnataka	Haryana	Jharkhand
					J&K
			Kerala	NE1	
			UP(E)	NE2	
			UP(W)	Orissa	
		WB	Uttaranchal		



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Sr.Nos	Service Provider	Metro Circle	"A" Circle	"B" Circle	"C" Circle
02	MTNL	Delhi	Not Operating	Not Operating	Not Operating
		Mumbai			
03	Reliance	Delhi	AP	MP	Bihar
		Mumbai	Gujarat	Punjab	Orissa
		Chennai	Maharashtra	Rajasthan	
		Kolkata	TN	Haryana	
			Karnataka	Kerala	
				UP(E)	
				UP(W)	
	WB				
04	TATA	Delhi	AP		
		Mumbai	Gujarat		
		Chennai	Maharashtra		
			TN		
			Karnataka		
05	Bharti	Delhi	AP	MP	
		Mumbai	TN	Punjab	
		Kolkata	Karnataka	Haryana	
				UP(E)	
				UP(W)	
06	Shyam	Not Operating		Rajasthan	
07	HFCL	Not Operating		Punjab	
Total required to be covered as per PMR	7	14	18	24	12
Total Covered	6	11	11	21	7



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Sr.Nos	Service Provider	Metro Circle	"A" Circle	"B" Circle	"C" Circle
%age Covered	85.7%	79%	61%	88%	58%
Operators-Circle Coverage	50/68 x 100 = 73%				
Attributed Reasons	For all the operators dates were not confirmed inspite of several followup				

3.2.1.2 PERFORMANCE

Table SF 9: Parameter wise performance of the BSOs

Parameters	Metro Circle		A Circle		B Circle		C Circle		All circles		% Operators meeting Benchmark
	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	Total Operators audited	No of operator not meeting benchmark	
Provision of Telephone after registration of demand	11	11	11	10	20	20	7	7	49	48	2.05
Fault Incidences	11	3	11	3	19	7	7	5	48	18	62.50
Fault repair by Next Working Day	11	4	11	4	18	9	7	3	47	20	57.44
Mean time for Repair	11	4	8	4	17	8	9	5	45	21	53.33
Grade of Service Junction between Local Exch	10	6	10	8	20	15	9	7	49	36	26.53
Grade of Service Outgoing junction from Tax to Local	9	5	10	8	16	13	9	5	44	31	29.54



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Parameters	Metro Circle		A Circle		B Circle		C Circle		All circles		% Operators meeting Benchmark
	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	Total Operators audited	No of operator not meeting benchmark	
Grade of Service Incoming Junction from Local to Tax	8	5	9	8	18	12	9	6	44	31	29.65
Grade of Service Incoming or Outgoing junction between Tax-tax	4	3	8	7	12	12	6	6	30	28	6.67
CCR within local network	10	5	11	5	19	8	9	5	49	23	53.06
Metering and Billing Credibility	9	4	11	6	20	6	7	1	47	17	63.82
Customer Care Promptness Shift Request	10	9	11	8	20	13	5	3	46	33	28.27
Customer Care Promptness Closure Request	9	8	11	11	18	12	4	0	42	31	26.20
Customer Care Promptness Additional Facility Request	10	5	10	2	20	8	6	0	46	15	67.39
Time taken for refund of deposit after closure	10	5	6	6	9	4	5	2	30	17	43.34

This does not cover the operators who have not provided the data (DNP), wherein No incidences have been observed (NI) and Audit Not Done (ND). IVR within 20 Seconds, IVR within 40 Seconds, Voice within 60 Seconds, Voice within 90 seconds parameters not covered.



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3.2.1.3 CRITICAL ANALYSIS

The parameters, which are of concern, are

- a) **Provision of Telephone:** 97.95% of the operators audited are not meeting the criteria.
- b) **Fault Repair by Next working day:** 42.6% of the operators audited are not meeting the criteria.
- c) **Grade of service (Junction to Local):** 73.47% of the operators audited are not meeting the criteria.
- d) **Grade of Service (Tax to Local):** 70.46% of the operators audited are not meeting the criteria.
- e) **Grade of Service (Local to Tax):** 70.35% of the operators audited are not meeting the criteria.
- f) **Grade of Service (Tax to Tax):** 93.33% of the operators audited are not meeting the criteria.
- g) **Call Completion Rate (Local Network):** 46.94% of the operators audited are not meeting the criteria.
- h) **Metering and Billing Credibility:** 36.18% of the operators audited are not meeting the criteria.
- i) **Shift Request:** 71.73% of the operators audited are not meeting the criteria.
- j) **Closure Request:** 73.8% of the operators audited are not meeting the criteria.
- k) **Additional Facility:** 32.61% of the operators audited are not meeting.
- l) **Time Taken for Refund of Deposits:** 56.66% of the operators are not meeting the criteria.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:



South Asia

TABLE SF 10:

Parameters	Metro Circles	A Circles	B Circles	C Circles
Provision of Telephone after registration of demand (100% IN 7 DAYS)	BSNL – Che (23.92%) Rel Info – Mum (35.93%) Rel Info-Delhi (48%)	Rel Info – Ker (42.6%) BSNL – Mah (50.6%) Rel Info – Mah (51.96%)	Rel Info – UP W (0%) Rel Info – WB (0%) Rel Info – Har (16%) BSNL – UP E (38.7%) BSNL – WB (35.89%)	Rel Info – Bihar (0%) Rel Info-HP(0%)
Fault Incidences (<5%)	MTNL – Mum (10.5%)	BSNL – Mah (8.49%) AP Bharti – (8.02%)	BSNL – UP W (17%) BSNL – Har (9.7%) BSNL – WB (9.89%) BSNL – Raj (9.45%)	BSNL – HP (7.43%) BSNL – J&K (7.6%) BSNL-Ass (9.7%)
Fault repair by Next Working Day (90%)	BSNL – Che (35.9%)	BSNL AP(75.76%)	BSNL – MP (55.6%)	BSNL – Assam (65.7%) Rel Info Chatissgarh (60.99%)
Mean time for Repair (<8 HRS)	MTNL – Mum (29.82 hrs) Bharti Delhi (12.41 hrs) Bharti – Mum (44.35hrs)	Tata – AP (21.1 hrs) BSNL – Mah (14.4 hrs)	Bharti – UP W (14.9 hrs) BSNL – UP E (11.5 hrs) BSNL – Har (11 hrs)	BSNL – Assam (17.05 hrs) BSNL J&K(26)
Grade of Service Junction between Local Exch (0.002%)	Rel Info – Kol (1.81) BSNL – Kol (0.98) Rel – Chennai (1.81%)	Rel Info – TN (2.01) Rel Info – AP (6)	Rel Info – UP W (7.64%) Rel Info – WB (1.34%)	Rel Info – Orissa (12.4%)
Grade of Service Outgoing junction from Tax to Local (0.005%)	Rel Info – Del (1.05%) Rel Info – Kol (0.37%) Rel Info Chennai (0.37%)	Rel Info – AP (3.15%) Rel Info – TN (6.08%) Rel Info – Kar (2.26%)	Rel Info – WB (20.44%) Rel Info – UP E (6.48%) Rel Info –Ker (8.51%)	Rel Info – Orissa (14.47%)
Grade of Service Incoming Junction from Local to Tax (0.005%)	Rel Info – Del (2.02%) Rel Info – Kol (0.9%) Rel Info Chennai(0.9%)	Rel – Guj (9.27%) Rel Info – Mah (16.74%) Rel Info – TN (19.79%)	Rel Info – UP W (24.62%) Rel Info – UP E (14.81%) Rel Info – Raj (9.27%)	Rel Info – Bihar (27.81%)
Grade of Service Incoming or Outgoing junction between Tax-tax (0.005%)	Rel Info – Del (1.23%) Rel Info – Kol (1.63%) Rel Info Chennai(1.63%)	Rel Info – Kar (7.94%)	BSNL – UP E (37.6) Rel Info – MP (5.26%)	Rel Info – Orissa (39.04%)



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Parameters	Metro Circles	A Circles	B Circles	C Circles
CCR within local network (>55%)	Bharti Mumbai(47.6) Rel Info Delhi(49.81)	BSNL AP(47.5%)	Rel Info – WB (34.78%) Rel Info – UP E (38.37%)	BSNL – Assam (16.89%)
Metering and Billing Credibility (<0.10%)	Bharti – Mum (2.91%) Bharti Dalhi(0.33%)	Bharti – AP (1.89%) Tata – Mah (0.9%)	Bharti – Har (1.9%) Rel Info – MP (0.96%) Bharti – UP W (1.01%)	
Customer Care Promptness Shift Requests (95% WITH IN 3 DAYS)	Bharti – Mum (27.3%) Bharti – Del (34.3%) Bharti Chennai(29.08)	Bharti – AP (19.3%) Tata – AP (50.72%)	Bharti – UP W (34.2%) BSNL – WB (33.3%) Bharti – Har (34.3%)	BSNL – HP (50%)
Customer Care Promptness Closure Requests (95% WITH IN 24 HOURS)	Rel Info –Mumbai (28.25%) Rel Info KOL(18.18%)	Bharti – AP (0%) Tata – AP (0%)	Reliance (Kerala) (33.7%)	
Customer Care Promptness Additional Facility Requests (95% WITHIN 24 HOURS)	Bharti Mumbai (67.9%)	Tata-Mah(60.8%)	Rel UP W(60%)	
Time taken for refund of deposit after closure (100% WITHIN 60 DAYS)	Tata Mumbai (18.64%) BSNL Kolkata(96.4%)	Bharti AP (0%)	Haryana BSNL (50.4%), BSNL WB (0%)	BSNL HP(81.2%)



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3.2.2 HELPLINE - BASIC SERVICES

3.2.2.1 COVERAGE

Calls were made to the call centre of 23 operators to verify the response time of IVR and Customer Agent.

3.2.2.2 PERFORMANCE

TABLE SF : 11

Parameters	Metro Circle		A Circle		B Circle		C Circle		All circles		% Operators meeting Benchmark
	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	Total Operators audited	No of operator not meeting benchmark	
IVR within 20 seconds	5	1	4	0	4	1	6	3	19	5	73.68
IVR within 40 seconds	5	2	4	0	4	2	6	4	19	8	57.89
Voice within 60 seconds	6	2	4	1	4	3	6	4	20	10	50.0
voice within 90 seconds	6	2	4	1	4	2	6	5	20	10	50.0

3.2.2.3 CRITICAL ANALYSIS

The performance in B & C Circles with respect to the parameter Operator Response within 60 and 90 seconds is significantly beyond the benchmark.

3.3 CUSTOMER SATISFACTION SURVEY (CELLULAR)

3.3.1 COVERAGE

40155 no. of customers were required to survey. Hence, the survey has been conducted for 35046.

105 operators have done out of 123 operators operating as per PMR September, 2005.



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3.3.2 PERFORMANCE

Parameter wise performance of the CMSPs

TABLE SF: 12

Parameters	Metro Circle		A Circle		B Circle		C Circle		All circles		% Operators meeting Benchmark
	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	No of operators Audited	No of operator not meeting benchmark	Total Operators audited	No of operator not meeting benchmark	
Satisfied with Provision of Service	21	6	26	2	38	19	20	6	105	33	68.57
Pre-paid Customers	21	2	26	5	38	8	20	0	105	15	85.71
Post-paid Customers	21	1	26	1	38	11	20	9	105	22	79.04
% Satisfied with help services	21	18	26	6	38	38	20	20	105	82	21.20
% Satisfied with Network Performance	21	20	26	26	38	38	20	19	105	103	1.90
% Satisfied with maintainability	21	21	25	19	38	30	20	20	104	90	14.28
Overall customer satisfaction	21	18	26	21	38	36	20	20	105	95	9.52
Satisfaction with supplementary services	21	7	26	18	38	22	20	13	105	60	42.85



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3.3.3 CRITICAL ANALYSIS

MOBILE SERVICE	Operator Meeting All the Benchmark Parameters in all Circles	Operator Not Meeting All the Benchmark Parameters in all Circles	Parameter not Met by All operators in all circles	Area of Concern
Metro Circle	0	0	Maintainability	Helpline Service, Network Performance, Maintainability, Overall Customer Satisfaction
A Circle	0	0	Network Performance	Maintainability, Overall Customer Satisfaction, Supplementary Services
B Circle	0	0	Helpline Service, Network Performance	Maintainability, Overall Customer Satisfaction
C Circle	0	0	Helpline Service, Maintainability, Overall Customer Satisfaction	Network Performance, Supplementary Services

The operators whose performance on a particular parameter is significantly poor are detailed as below:

TABLE SF:13

Parameters	Metro Circles	A Circles	B Circles	C Circles
Satisfied with Provision of Service (90%)	Hutch –Mumbai- (86%)		BSNL – UP E (34%) Rel Info – WB (63%) BSNL – WB (63%) BSNL – MP (74%)	BSNL-Orissa- (84%)
Pre-paid Customers (90%)		BSNL – Guj (69%) Hutch – Guj (74%) Idea – Guj (75%)	BSNL – WB (63%) Rel Info – WB (74%)	
Post paid Customers (90%)	MTNL-Delhi-(87%)		Hutch – Raj (66%) Hutch – UP W (71%)	BSNL – NE (59%) BSNL – J&K (70%)
% Satisfied with help services (95%)	MTNL – Delhi (62%) Tata – Delhi (67%) Idea – Delhi (68%) BSNL – Kol (68%)	Hutch (BPL) – TN (70%)	Rel Info – WB (50%) Rel Tel – WB (54%) Bharti - WB (54%) Hutch – UP E (56%)	Rel Tel – Bihar (33%) Bharti – Bihar (34%) BSNL – Bihar



South Asia

Parameters	Metro Circles	A Circles	B Circles	C Circles
				(39%) Rel Info – Bihar (39%)
% Satisfied with Network Performance (95%)	BSNL – Kol (68.4%) MTNL – Delhi (74.3%) BSNL – Chen (76%)	BSNL – Kar (63%) Hutch – Kar (70.7%) Bharti – Kar (72.1%) Spice – Kar (74.8%) BSNL – TN (74.8%)	BSNL – WB (59.6%) Rel Info – WB (60%) BSNL – UP E (61.6%) Bharti – WB (63.2%)	Rel Tel – Orissa (52.2%) BSNL – Orissa (57.2%) Rel Info – Orissa (57.3%)
% Satisfied with maintainability (95%)	Rel Info – Mum (26%) BPL – Mum (29%) MTNL – Del (34%)	Tata – Mah (0%) Idea – Mah (29%) Bharti – Mah (30%) Rel Info (30%)	Bharti – Ker (10%) BSNL – UP E (27%) BSNL – WB (39%)	Bharti – HP (3%) BSNL – J&K (15%) Bharti – J&K (20%)
Overall customer satisfaction (95%)	BSNL-Kol(83%)	Hutch-Kar(83%)	BSNL – WB (71%) Rel Info – WB (71%) BSNL – UP E (77%)	BSNL – NE (78%) Bharti – NE (78%)
Satisfaction with supplementary services (95%)		Tata – Kar (65%) Bharti – Guj (68%) Hutch – Guj (72%) Rel Info – Guj (74%) Idea – Guj (74%)	BSNL – UP E (65%) Idea – Har (78%) Bharti – UP E (78%) Rel Info – UP E (79%)	BSNL – Bihar (68%) Rel Info – Bihar (68%)

3.4 CSS BASIC

3.4.1. COVERAGE

Total no. of quantity required for survey is 19750. However, the survey has been conducted for 20832.

Operators required for coverage was 68. However, the operators covered was 53.



South Asia

3.4.2 PERFORMANCE

TABLE SF:14 Parameter wise performance of the BSOs

Parameters	Metro Circle		A Circle		B Circle		C Circle		All circles		% Operators meeting Benchmark
	No of operators Audited	No of operators not meeting benchmark	No of operators Audited	No of operators not meeting benchmark	No of operators Audited	No of operators not meeting benchmark	No of operators Audited	No of operators not meeting benchmark	Total Operators audited	No of operators not meeting benchmark	
% Satisfied with provision of service (95%)	11	9	14	5	20	13	8	8	53	35	33.96
% Satisfied with Billing services (90%)	11	8	14	4	20	7	8	6	53	25	52.83
% Satisfied with help services (90%)	11	10	14	9	20	19	8	8	53	46	13.20
% Satisfied with Network Performance (95%)	11	9	14	10	20	12	8	8	53	39	26.41
% Satisfied with maintainability (95%)	11	11	14	14	20	18	8	8	53	51	3.77
Overall customer satisfaction (95%)	11	11	14	14	20	18	8	8	53	51	3.77
Satisfaction with supplementary services (95%)	11	4	14	7	20	3	8	3	53	17	67.92
Average Number of operators meeting the parameter is 37.71 (264/7) out of 53										37.71	28.83



South Asia

3.4.3 CRITICAL ANALYSIS

BASIC SERVICE	Operator Meeting All the Benchmark Parameters	Operator Not Meeting All the Benchmark Parameters	Parameter not Met by All operators	Area of Concern
Metro Circle	0	BSNL Chennai & Reliance Wireline Kolkata	Maintainability, Overall Customer Satisfaction	Network Performance
A Circle	0	BSNL Andhra Pradesh	Helpline Services, Maintainability, Network Performance and overall Customer Satisfaction	Helpline Services, Network Performance and overall Customer Satisfaction
B Circle	0	BSNL West Bengal	0	Network Performance, Maintainability and overall Customer Satisfaction
C Circle	0	BSNL Bihar, BSNL Orissa	Helpline Services, Network Performance, Maintainability, Provision of Services and overall Customer Satisfaction	Helpline Services, Network Performance, Maintainability and overall Customer Satisfaction



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The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

TABLE SF:15

Parameters	Metro Circles	A Circles	B Circles	C Circles
% Satisfied with provision of service (90%)	BSNL – Chen (56.5%)	BSNL-Ap(90.6%) BSNL-TN(91.1%)	BSNL – UP E (37.1%) BSNL – WB (60.8%) BSNL – MP (67.1%)	BSNL – J&K (50%) BSNL – Orissa (59.7%) BSNL – HP (62%)
% Satisfied with Billing services (90%)	Bharti – Chen (63%) Rel W/ireline-Kol(75.4%)	Bharti – TN (66.8%) BSNL-TN(80.5)	BSNL – UP W (52.6%) Bharti – UP W (55.9%) BSNL – UP E (63.2%)	Rel Info – Bihar (22.2%) BSNL – Bihar (24.9%) Rel Info – Orissa (46%) BSNL – NE (46.51%)
% Satisfied with help services (90%)	BSNL – Kol (57.9%) Rel Info – Kol (65.1%) Rel Info – Delhi (68.9%)	Tata – Mah (69.8%) Rel Info – TN (74.8%) Bharti – TN (74.8%)	BSNL – WB (48.7%) BSNL – UP E (56.2%) BSNL – Ker (60%) Rel Info – Ker (60%)	Rel Info – Bihar (22.8%) BSNL – Bihar (39.8%) BSNL – NE (49.1%)
% Satisfied with Network Performance (95%)	Bharti – Chen (60%)	Bharti – TN (67.6%) BSNL – TN (77.4%)	BSNL – UP E (63.8%) BSNL – WB (65.3%) BSNL – UP W (70.1%)	Rel Info – Bihar (20.5%) BSNL – Bihar (42%) BSNL - Assam (69.1%)
% Satisfied with maintainability (95%)	MTNL – Delhi (16%) BSNL – Kol (21%) Rel Info – Kol (31%)	Bharti – Kar (0%) BSNL – Guj (1%) BSNL – AP (4%) BSNL – Kar (5%)	BSNL – MP (3%) BSNL – Har (7%) BSNL – UP E (7%) BSNL – Raj (8%)	BSNL – HP (0%) BSNL – NE (0%) BSNL – J&K (0%)
Overall customer satisfaction (95%)	BSNL – Kol (71%) Bharti – Chen (73%) BSNL – Chenn (74%) MTNL – Delhi (74%) Rel – Kok (74%)	Bharti – TN (70%) BSNL – Guj (72%) Bharti – Kar (76%) BSNL – TN (76%)	BSNL – UP E (55%) BSNL – WB (65%) BSNL – UP W (69%)	Rel Info – Bihar (30%) BSNL – Bihar (37%) BSNL – NE (54%)
Satisfaction with supplementary services (95%)	BSNL-Kol(89.8%)	BSNL – Guj (60%) BSNL – AP (73.7%)	BSNL – WB (67.9%)	Rel Info – Bihar (16.4%) BSNL – Bihar (20.4%)



South Asia

3.5 SUMMARY OF FINDINGS (CIRCLE WISE)

The Telecom Regulatory Authority of India (TRAI) has a critical mandate to protect the interest of consumers in addition to various other functions bestowed on it. As part of the licence conditions to Basic and CMTS (Cellular Mobile Telephone Services) operators, it has the power and authority to measure the Quality of Service provided by various Government (BSNL & MTNL) and private operators. The parameters that need to be measured for Basic and Cellular Services have been specified in the TRAI notification of July 2005. The summarised results of the Quality of Service Audit and Customer Satisfaction Survey are given below.



3.6 COMPLIANCE REPORT – QOS CELLULAR

3.6.1 PERFORMANCE REPORT - QOS CELLULAR

Metro Circles

Parameters / Benchmarks		Delhi						Mumbai						Kolkata				
		Bharti	Hutch	Tata	Idea	MTNL	Rel Info	Bharti	Hutch	Tata	BPL	MTNL	Rel Info	Bharti	Hutch	Tata	BSNL	Rel Info
Accumulated Down Time of Community Isolation	24 Hrs	0	0	0	0	ND	0	0	0	2.9	286	0	0	0	9.6	11	0	
Call Setup Success Rate	>95%	98.84	99.21	97.26	99.98	ND	99.4	99.3	99.62	96.99	99.5	95.87	99.47	97.54	99.82	97.3	94.13	97.87
Service Access Delay	9 to 20 Sec	3.76	7.88	11.06	7	ND	DNP	3.17	10.05	8.4	11.2	DNP	DNP	17.85	18	4.64	15.8	1.296
SDCCH <1%	<1%	0.1	0.009	0	0.83	ND	1.48	0.34	0.14	0	0.22	NA	0.75	0.21	0.115	10.6	1.02	ND
TCH Congestion < 2%	<2%	0.096	0.04	0.48	1.25	ND	0.59	0.50	1.74	0.82	1.51	NA	0.54	0.25	1.2	0.46	3.75	ND
Call Drop rate	<3%	1.3	1.13	0.71	0.55	ND	0.71	0.41	1.96	0.41	1.36	1.67	0.84	1.26	0.724	0.63	0.58	0.99
% Connections with Good Voice Quality	>95%	ND	97.19	96.3	98.47	ND	98.61	98.65	95.6	96.2	100	NA	99.25	97.42	96.44	97.6	86.59	97.69
IVR within 20 seconds	>80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR within 40 seconds	>95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 60 seconds	>80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 90 seconds	>95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Billing Complains per 100 bills issued	<0.1%	ND	0.022	ND	0.48	ND	0.008	0.01	0.006	0.84	ND	0.17	0.07	0.04	0.065	0.3	0.27	0.08
%of Billing Complains resolved within 4 weeks	100%	ND	100	ND	100	ND	100	100	100	93.9	ND	100	100	100	100	99.7	100	ND
Period of refunds/payments due to customers from the date of resolution	100%	ND	DNP	ND	100	ND	100	100	100	82.4	ND	100	100	100	100	50.4	0	ND



		Chennai				
	Mobile	Bharti	Hutch	Tata	BSNL	Rel Info
Accumulated Down Time of Community Isolation	24 Hrs	0	0	28.1	0	0
Call Setup Success Rate	>95%	99.55	99.22	98.52	99.02	99.69
Service Access Delay	9 to 20 Sec	8	DNP	13.7	6.6	1.36
SDCCH <1%	<1%	0.01	0.09	3.37	0.22	0.78
TCH Congestion < 2%	<2%	0.08	0.74	0.014	0.79	0.57
Call Drop rate	<3%	0.64	1.14	0.56	0.69	0.43
% Connections with Good Voice Quality	>95%	DNP	88.97	97	83.77	99.6
IVR within 20 seconds	80%	93.5	ND	95.06	ND	ND
IVR within 40 seconds	95%	100	ND	DNP	ND	ND
Voice within 60 seconds	80%	ND	ND	DNP	ND	ND
Voice within 90 seconds	95%	ND	ND	DNP	ND	ND
Billing Complains per 100 bills issued	<0.1%	0.09	0.045	0.36	ND	0.07
%of Billing Complains resolved within 4 weeks	100%	100	100	100	ND	100
Period of refunds/payments due to customers from the date of resolution	100%	DNP	100	DNP	ND	100

DNP – Data not provided; ND - Not done; NA – Not applicable.



MSC DATA - POI

	Delhi						Mumbai						Kolkata				
	Bharti	Hutch	Tata	Idea	MTNL	Rel Info	Bharti	Hutch	Tata	BPL	MTNL	Rel Info	Bharti	Hutch	Tata	BSNL	Rel Info
Total POIs	11	29	98	74	ND	27	215	54	175	12	DNP	33	DNP	DNP	DNP	DNP	5
POIs Not Meeting	3	0	12	0	ND	0	11	0	2	0	DNP	0	DNP	DNP	DNP	DNP	0

	Chennai					
	Bharti	Hutch	Tata	BSNL	Rel Info	Aircel
Total POIs	ND	22	ND	DNP	ND	ND
POIs Not Meeting	ND	0	ND	DNP	ND	ND

DNP – Data not provided; ND - Not done;



Practical Data - INTER OPERATOR CALL ASSESSMENT

	Delhi						Mumbai						Kolkata				
	Bharti	Hutch	Tata	Idea	MTNL	Rel Info	Bharti	Hutch	Tata	BPL	MTNL	Rel Info	Bharti	Hutch	Tata	BSNL	Rel Info
Total Combinations	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4
POIs Not Meeting	0	0	0	1	0	0	1	1	4	0	5	1	0	0	0	0	0

	Chennai					
	Bharti	Hutch	Tata	BSNL	Rel Info	Aircel
Total Combinations	5	5	5	5	5	5
POIs Not Meeting	0	0	0	0	0	0

Legends:-

DNP – Data not provided; ND - Not done; NI - No incident; NA – Not applicable.

ANALYSIS:

1. In Mumbai Circle, Majority of the operators are not meeting the IVR and Operators response parameters.
2. In Mumbai Circle, POI congestion (by making practical calls) is observed amongst all operators except BPL.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	Metro Circles
Accumulated Down Time of Community Isolation (<24 HOURS)	MTNL – Mum (286 hours)
Call Setup Success Rate (>95%)	
Service Access Delay (9-20SECS)	
SDCCH/ Paging cong (<1%)	Tata – Kol (10.6%), Tata – Che (3.37%)
TCH cong (<2%)	BSNL – Kol (3.75%)
Call Drop rate (<3%)	
% Connections with Good Voice Quality (>95%)	BSNL – Chennai (83.77%)
IVR within 20 seconds (80%)	
IVR within 40 seconds (95%)	
Voice within 60 seconds (80%)	
voice within 90 seconds (95%)	
Billing Complains per 100 bills issued (0.1%)	Tata – Mum (0.84%), Idea – Del (0.48%)
%of Billing Complaints resolved within 4 weeks (100%)	Tata – Mum (93.9%)
Period of refunds/payments due to customers from the date of resolution (<4 WEEKS)	Tata – Kol (50.4%)



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A Circles

Parameters / Benchmarks		AP						Gujarat						Karnataka					
		Bharti	Hutch	Tata	BSNL	Reliance	Idea	Bharti	Hutch	Tata	BSNL	Reliance	Idea	Bharti	SPICE	BSNL	Reliance	Hutch	Tata
Accumulated Down Time of Community Isolation	24 Hrs	0	9.6	12	7.65	2.26	27.9	31.6	22	10.8	2	0.5	DNP	ND	2.18	ND	0.53	ND	ND
Call Setup Success Rate	>95%	DNP	99.1	97	98.4	99.43	100	97.7	96.9	98.49	53.6	99.51	DNP	ND	97.9	ND	99.38	ND	ND
Service Access Delay	9 to 20 Sec	DNP	5	5.6	7	DNP	DNP	DNP	9.49	4.65	10	0.77	3.02	ND	8.09	ND	DNP	ND	ND
SDCCH <1%	<1%	0.28	0.31	0	0.86	2.4	0.24	0.2	0.2	5.45	0.13	1.74	1.18	ND	1.66	ND	1.6	ND	ND
TCH Congestion < 2%	<2%	0.65	0.41	0.09	1.96	0.57	1.64	0.166	0.98	0.012	DNP	0.49	0.30	ND	17.45	ND	0.62	ND	ND
Call Drop rate	<3%	DNP	0.89	0.38	1.54	0.71	0.59	0.89	1.55	0.41	2.63	0.77	0.51	ND	1.39	ND	0.59	ND	ND
% Connections with Good Voice Quality	>95%	97	97.2	99.9	78	99.95	99.5	DNP	97.9	97.43	83.3	99.52	98.05	ND	99.1	ND	99.62	ND	ND
IVR within 20 seconds	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR within 40 seconds	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 60 seconds	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 90 seconds	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Billing Complains per 100 bills issued	<0.1%	0	0.07	ND	0.01	0.08	0.25	0.11	0.03	0.033	ND	0.08	0.08	ND	0.02	ND	0.068	ND	ND
%of Billing Complaints resolved within 4 weeks	100%	100	DNP	ND	95.5	100	100	100	100	100	ND	100	100	ND	100	ND	100	ND	ND
Period of refunds/payments due to customers from the date of resolution	100%	100	99.3	ND	100	100	100	100	100	100	ND	100	100	ND	100	ND	100	ND	ND

Parameters/ Benchmarks		Maharashtra						Tamil Nadu					
		Reliance	Bharti	BSNL	BPL	TATA	Idea	Reliance	Bharti	Aircel	BSNL	Tata	Hutch (BPL)
Accumulated Down Time of Community Isolation	24 Hrs	1.93	25.73	162.03	64.15	11.11	2.08	1.86	298.04	ND	ND	ND	ND
Call Setup Success Rate	>95%	99.59	97.06	96	98	95.67	99.6	99.5	99.45	ND	ND	ND	ND
Service Access Delay	9 to 20 Sec	ND	5.95	10	14	4.4	10.2	ND	3.22	ND	ND	ND	ND
SDCCH <1%	<1%	1.92	0.26	0.85	1.14	0	0.78	2.7	0.79	ND	ND	ND	ND
TCH Congestion < 2%	<2%	0.43	0.23	1.75	1.9	0.036	0.20	0.54	0.44	ND	ND	ND	ND
Call Drop rate	<3%	0.76	0.98	1.32	1.24	0.35	1.38	0.83	0.77	ND	ND	ND	ND
% Connections with Good Voice Quality	>95%	99.5	97.7	92.3	97.8	95.46	97.7	ND	97.74	ND	ND	ND	ND
IVR within 20 seconds	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR within 40 seconds	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 60 seconds	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 90 seconds	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Billing Complains per 100 bills issued	<0.1%	0.08	0.02	0.05	0.07	1.99	0.18	0.08	ND	ND	ND	ND	ND
%of Billing Complaints resolved within 4 weeks	100%	100	100	100	100	90.3	100	100	ND	ND	ND	ND	ND
Period of refunds/payments due to customers from the date of resolution	100%	100	100	100	100	71.47	100	100	ND	ND	ND	ND	ND

DNP – Data not provided; ND - Not done;

MSC DATA – POI

	Andhra Pradesh						Gujarat						Karnataka					
	Bharti	Hutch	Tata	BSNL	Rel Info	Idea	Bharti	Hutch	Tata	BSNL	Rel Info	Idea	Bharti	Spice	BSNL	Rel Info	Hutch	Tata
Total POIs	DNP	DNP	ND	DNP	ND	DNP	21	DNP	DNP	57	18	48	ND	20	ND	31	ND	ND
POIs Not Meeting	DNP	DNP	ND	DNP	ND	DNP	DNP	DNP	DNP	4	0	DNP	ND	2	ND	2	ND	ND

	Maharashtra						Tamil Nadu					
	Rel Info	Bharti	BSNL	BPL	Tata	Idea	Rel Info	Bharti	Aircel	BSNL	Tata	Hutch (BPL)
Total POIs	29	64	31	27	20	82	17	DNP	ND	ND	ND	ND
POIs Not Meeting	8	DNP	1	6	0	6	1	DNP	ND	ND	ND	ND

DNP – Data not provided; ND - Not done.

PRACTICAL DATA – INTER OPERATOR CALL ASSESSMENT

	Andhra Pradesh						Gujarat						Karnataka					
	Bharti	Hutch	Tata	BSNL	Rel Info	Idea	Bharti	Hutch	Tata	BSNL	Rel Info	Idea	Bharti	Spice	BSNL	Rel Info	Hutch	Tata
Total Combinations	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
POIs Not Meeting	0	0	0	0	0	0	1	2	1	0	1	0	0	2	0	0	0	0

	Maharashtra						Tamil Nadu					
	Rel Info	Bharti	BSNL	BPL	Tata	Idea	Rel Info	Bharti	Aircel	BSNL	Tata	Hutch (BPL)
Total Combinations	5	5	5	5	5	5	5	5	5	5	5	5
POIs Not Meeting	1	2	1	0	0	0	0	0	0	0	0	0

ANALYSIS

1. Out of the 5 circles, In Gujarat and Maharashtra, compliance to overall parameter is least, However it is random and cannot be attributed to any operator.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	A Circles
Accumulated Down Time of Community Isolation (<24 HOURS)	BPL – Mah (64.16 Hrs), Bharti TN – 298.04 hrs, BSNL Mah 162.03 hrs,
Call Setup Success Rate (>95%)	BSNL – Guj (53.6%)
Service Access Delay (9-20SECS)	



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Parameters	A Circles
SDCCH/ Paging cong (<1%)	Tata – Guj (5.45%) Rel Info – AP (2.4%)
TCH cong (<2%)	Spice – Kar (17.45%)
Call Drop rate (<3%)	
% Connections with Good Voice Quality (>95%)	BSNL – AP (78%)
IVR within 20 seconds (80%)	
IVR within 40 seconds (95%)	
Voice within 60 seconds (80%)	
voice within 90 seconds (95%)	
Billing Complains per 100 bills issued (0.1%)	Tata – Mah (1.99%)
%of Billing Complaints resolved within 4 weeks (100%)	Tata – Mah (90.3%)
Period of refunds/payments due to customers from the date of resolution (<4 WEEKS)	Tata – Mah (71.47%)

B Circles

Parameters/ Benchmarks		Haryana						Kerala						MP					
		Hutch	Idea	Relinc e	BSNL	Tata	Bhart i	Hutch (BPL)	Bharti	BSNL	Tata	Idea	Rel Info	Rel tel	Idea	Reli ance	BSN L	Tata	Bhar ti
Accumulated Down Time of Community Isolation	24 Hrs	11	10.216	1.15	13.23	17.9	5.23	23.7	23	74.20	2.92	47.67	0	58.2	17.7	1.46	22.7	7.2	14.5
Call Setup Success Rate	>95 %	99.96	99.97	99.4	95.8	97.3 9	99.41	95.6	99.3	98.4	99.7	99.94	99.47	100	98.3	99.5	98.6	98.5	99.7
Service Access Delay	9 to 20 Sec	3.65	2.79	1.34	2.25	1.47	3.42	7.44	7.76	5.12	17.5	13.83	DNP	14	12.4	6.32	2.91	3.65	15.6
SDCCH <1%	<1 %	0.04	0.26	5.2	0.553	14.2 3	0.23	0.99	0.25	0.40	0	0.36	2.7	1.01	1.06	4.17	0.14	0	0.21
TCH Congestion < 2%	<2 %	0.186	1.016	0	1.71	8.75	0.25	1.70	0.16	1.60	0	1.77	0.0	11.53	1.66	0.51	1.20	0	0.74
Call Drop rate	<3%	1.24	0.89	0.8	19.3	1.07	1.48	1.22	1.14	1.32	0.54	0.94	0.64	1.91	1.21	0.98	0.78	0.65	0.56
% Connections with Good Voice Quality	>95 %	96.5	99.44	99.7	98.9	98.4	99.3	96.8	99.2	89	99.67	98.43	100	95.9	99.1	99	100	98.5	99
IVR within 20 seconds	>80 %	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR within 40 seconds	>95 %	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 60 seconds	>80 %	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 90 seconds	>95 %	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Billing Complains per 100 bills issued	<0.1 %	0.13	0.115	0.08	0.18	1.59	0.1	0.03	ND	ND	ND	0.16	0.09	0.02	0.05	0.07	ND	ND	0.4



South Asia

Parameters/ Benchmarks		Haryana						Kerala						MP					
		Hutch	Idea	Reliance	BSNL	Tata	Bharti	Hutch (BPL)	Bharti	BSNL	Tata	Idea	Rel Info	Rel tel	Idea	Reliance	BSNL	Tata	Bharti
%of Billing Complaints resolved within 4 weeks	100 %	100	100	100	100	100	100	100	ND	ND	ND	100	100	100	100	100	ND	ND	100
Period of refunds/payments due to customers from the date of resolution	100 %	100	100	100	NI	100	95	100	ND	ND	ND	100	100	100	100	100	ND	ND	100

Parameters/ Benchmarks		Punjab						Rajasthan					UP (E)					
		Spice	Hutch	Reliance	BSNL	Tata	HFCL	Bharti	Hutch	Bharti	BSNL	Tata	Reliance	Hutch	Bharti	BSNL	Tata	Reliance
Accumulated Down Time of Community Isolation	24 Hrs	0	0	0.43	1.42	3.7	19.05	20.16	11.7	41.35	ND	ND	2.78	2.94	17.61	13	ND	1.74
Call Setup Success Rate	>95%	96.9	99.36	99.4	99.6	99.47	97.5	99.2	96.2	96.54	ND	ND	99.46	95.9	95.3	97	ND	99.48
Service Access Delay	9 to 20 Sec	5.60	5.30	DNP	4.16	2.13	10.3	2.99	7.95	8.0	ND	ND	ND	8.16	3.4	2.59	ND	DNP
SDCCH <1%	<1%	0.68	0.086	2.09	0	0	0	0.31	0.37	0.59	ND	ND	4.63	0.46	0.78	1.76	ND	5.05
TCH Congestion < 2%	<2%	3.42	0.34	0.55	0.66	0.27	0.01	0.23	0.47	0.3	ND	ND	0.54	1.79	1.64	2.56	ND	0
Call Drop rate	<3%	1.63	1.12	0.79	0.59	0.63	0.68	1.82	1.47	1.3	ND	ND	1.19	0.73	1.70	2.92	ND	1.12
% Connections with Good Voice Quality	>95%	97.95	99	DNP	91.45	98.1	DNP	99.9	92.9	100	ND	ND	ND	94.62	98.50	97.37	ND	ND
IVR within 20 seconds	>80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Parameters/ Benchmarks		Punjab							Rajasthan					UP (E)				
		Spice	Hutch	Reliance	BSNL	Tata	HFCL	Bharti	Hutch	Bharti	BSNL	Tata	Reliance	Hutch	Bharti	BSNL	Tata	Reliance
IVR within 40 seconds	>95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 60 seconds	>80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 90 seconds	>95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Billing Complains per 100 bills issued	<0.1%	0.15	0.099	0.08	DNP	1	0.74	0.13	0.037	0.035	DNP	ND	0.079	0.05	0.2	DNP	ND	0.085
%of Billing Complaints resolved within 4 weeks	100%	100	100	100	100	100	100	100	100	100	ND	ND	100	100	100	ND	ND	100
Period of refunds/payments due to customers from the date of resolution	100%	100	100	100	NI	100	100	NI	100	100	DNP	ND	100	100	ND	DNP	ND	100

Parameters / Benchmarks		UP(W)						West Bengal						
		Hutch	Idea	BSNL	Tata	Reliance	Bharti	Rel tel	Hutch	Reliance	BSNL	Tata	Dishnet	Bharti
Accumulated Down Time of Community Isolation	24 Hrs	3.30	23.81	882.52	ND	2.15	16.5	ND	0	11.50	0	ND	0	22.70
Call Setup Success Rate	>95%	99.6	99.64	98.73	ND	99.4	96.94	ND	98.8	99	98.9	ND	98.64	98.59
Service Access Delay	9 to 20 Sec	7.95	11.055	5.43	ND	DNP	2	ND	13.6	3.87	1.68	ND	3.566	18.5

Parameters / Benchmarks		UP(W)						West Bengal						
		Hutch	Idea	BSNL	Tata	Relince	Bharti	Rel tel	Hutch	Reliance	BSNL	Tata	Dishnet	Bharti
SDCCH <1%	<1%	0.305	0.5	0.7	ND	3.6	0.25	ND	0.35	4.9	0.22	ND	0.014	1.63
TCH Congestion < 2%	<2%	0.20	1.635	0.73	ND	0.58	1.03	ND	1.25	0.4	1.22	ND	0.002	0.48
Call Drop rate	<3%	1.95	0.86	1.88	ND	0.84	1.33	ND	1.59	0.42	2.42	ND	0.49	1.98
% Connections with Good Voice Quality	>95%	98.13	96.35	94.1	ND	ND	98.94	ND	98.6	ND	88.7	ND	80	92.54
IVR within 20 seconds	>80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR within 40 seconds	>95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 60 seconds	>80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 90 seconds	>95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Billing Complains per 100 bills issued	<0.1%	0.113	.058	DNP	ND	0.09	0.09	ND	0.05	0.1	0	ND	1.51	0.03
%of Billing Complaints resolved within 4 weeks	100%	100	100	100	ND	100	100	ND	100	100	100	ND	100	100
Period of refunds/payments due to customers from the date of resolution	100%	100	100	DNP	ND	100	100	ND	NI	100	NI	ND	100	100

DNP – Data not provided; ND - Not done; NI - No recorded incidents by Operator

MSC DATA – POI

	Haryana						Kerala						Madhya Pradesh					
	Hutch	Idea	Rel Info	BSNL	Tata	Bharti	Hutch (BPL)	Bharti	BSNL	Tata	Idea	Rel Info	Rel Tel	Idea	Rel Info	BSNL	Tata	Bharti
Total POIs	23	20	8	DNP	32	25	10	25	34	43	25	11	17	58	33	51	63	56
POIs Not Meeting	0	2	0	DNP	7	3	1	1	0	4	3	0	3	16	8	0	8	1

	Rajasthan					UP (E)						Punjab					
	Hutch	Bharti	BSNL	Tata	Rel Info	Hutch	Bharti	BSNL	Tata	Rel Info	Spice	Hutch	Rel Info	BSNL	Tata	HFCL	Bharti
Total POIs	25	31	ND	ND	18	32	38	49	ND	24	21	31	11	13	NA	DNP	45
POIs Not Meeting	9	16	ND	ND	2	5	21	0	ND	8	4	3	0	0	NA	DNP	2

	UP (W)						West Bengal						
	Hutch	Idea	BSNL	Tata	Rel Info	Bharti	Rel Tel	Hutch	Rel Info	BSNL	Tata	Dishnet	Bharti
Total POIs	35	48	24	ND	16	24	ND	DNP	25	DNP	ND	16	DNP
POIs Not Meeting	9	6	0	ND	2	10	ND	DNP	5	DNP	ND	DNP	DNP

DNP – Data not provided; ND - Not done;



South Asia

PRACTICAL DATA – INTER OPERATOR CALL ASSESSMENT

	Haryana						Kerala						Madhya Pradesh					
	Hutch	Idea	Rel Info	BSNL	Tata	Bharti	Hutch (BPL)	Bharti	BSNL	Tata	Idea	Rel Info	Rel Tel	Idea	Rel Info	BSNL	Tata	Bharti
Total Combinations	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
POIs Not Meeting	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Rajasthan					UP (E)					Punjab						
	Hutch	Bharti	BSNL	Tata	Rel Info	Hutch	Bharti	BSNL	Tata	Rel Info	Spice	Hutch	Rel Info	BSNL	Tata	HFCL	Bharti
Total Combinations	4	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6	6
POIs Not Meeting	0	0	0	0	0	4	3	4	0	1	2	2	0	3	0	0	1

	UP (W)						West Bengal						
	Hutch	Idea	BSNL	Tata	Rel Info	Bharti	Rel Tel	Hutch	Rel Info	BSNL	Tata	Dishnet	Bharti
Total Combinations	5	5	5	5	5	5	6	6	6	6	6	6	6
POIs Not Meeting	4	5	5	4	0	0	0	0	0	0	0	0	0



ANALYSIS

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	B Circles
Accumulated Down Time of Community Isolation (<24 HOURS)	BSNL – UP W (882.52 Hrs)
Call Setup Success Rate (>95%)	
Service Access Delay (9-20SECS)	
SDCCH/ Paging cong (<1%)	Tata – Har (14.23%), Rel Info – Har (5.20%), Rel Info – UPE (5.05%)
TCH cong (<2%)	Rel tel – MP (11.53%)
Call Drop rate (<3%)	BSNL – Har (19.3%)
% Connections with Good Voice Quality (>95%)	Dishnet – WB (80%), BSNL – WB (88.01%)
IVR within 20 seconds (80%)	
IVR within 40 seconds (95%)	
Voice within 60 seconds (80%)	
voice within 90 seconds (95%)	
Billing Complains per 100 bills issued (0.1%)	Dishnet – WB (1.51%), Tata – Har (1.59%), Tata – Pun (1%)
%of Billing Complaints resolved within 4 weeks (100%)	
Period of refunds/payments due to customers from the date of resolution (<4 WEEKS)	BSNL – Punjab (88.3%)

C Circles

Parameters / Benchmarks		ASSAM				BIHAR					HP				
		Rel tel	Bharti	Dishnet	BSNL	Rel tel	Reliance	Tata	BSNL	Bharti	Rel tel	Reliance	Tata	BSNL	Bharti
Accumulated Down Time of Community Isolation	24 Hrs	0	0	ND	0	20.066	1.75	ND	ND	2.08	21.6	1.1	31.8	2.166	15.733
Call Setup Success Rate	>95%	98	98.2	ND	98.2	88.72	99.45	ND	ND	98.91	98.66	99.56	98.11	98	99.4
Service Access Delay	9 to 20 Sec	3.32	5.5	ND	3.6	3.22	DNP	ND	ND	6.04	8.93	0.96	1.31	3.3	3.615
SDCCH <1%	<1%	0.9	0.27	ND	0.73	1.15	DNP	ND	ND	5.353	0.11	DNP	0	0.7	0.27
TCH Congestion < 2%	<2%	5.02	0.47	ND	1.76	11.026	DNP	ND	ND	3.851	6.2	DNP	0.38	1.8	0.315
Call Drop rate	<3%	1.11	1.25	ND	2.4	1.96	1.01	ND	ND	0.55	2.46	0.55	0.616	2.6	1.36
% Connections with Good Voice Quality	>95%	96.81	100	ND	99.2	85.18	DNP	ND	ND	93.3	100	99.6	96.62	DNP	96.4
IVR within 20 seconds	>80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR within 40 seconds	>95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 60 seconds	>80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 90 seconds	>95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Billing Complains per 100 bills issued	<0.1%	0.02	0.22	ND	0.002	0	0.09	ND	ND	0.07	0	0.053	0.77	0	0.03
%of Billing Complaints resolved within 4 weeks	100%	100	100	ND	66.66	100	100	ND	ND	100	NI	100	100	NI	100
Period of refunds/payments due to customers from the date of resolution	100%	100	100	ND	100	100	100	ND	ND	100	NI	100	100	NI	100

Parameters/ Benchmarks		NE				J & K			ORISSA					
		Rel tel	Bharti	Dishnet	BSNL	Dishnet	Bharti	BSNL	Rel tel	Reliance	Tata	Dishnet	BSNL	Bharti
Accumulated Down Time of Community Isolation	24 Hrs	0	0	ND	ND	0	ND	0	ND	1.31	ND	13.36	48.7	0
Call Setup Success Rate	>95%	98	99.26	ND	ND	98.67	ND	99.1	ND	99.51	ND	99.92	95.56	99.68
Service Access Delay	9 to 20 Sec	3.47	5	ND	ND	2.67	ND	2.32	ND	ND	ND	2.61	3.2	7.32
SDCCH <1%	<1%	1.49	0.08	ND	ND	0.72	ND	3.36	ND	7.7	ND	0.4	DNP	0.45
TCH Congestion < 2%	<2%	6.46	0.133	ND	ND	0.005	ND	4.33	ND	0.49	ND	0.09	DNP	0.456
Call Drop rate	<3%	2.56	1.06	ND	ND	0.76	ND	0.82	ND	0.87	ND	0.91	1.78	1.14
% Connections with Good Voice Quality	>95%	95.47	100	ND	ND	97.23	ND	DNP	ND	ND	ND	98.43	98.32	95.4
IVR within 20 seconds	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR within 40 seconds	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 60 seconds	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Voice within 90 seconds	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Billing Complains per 100 bills issued	<0.1%	0.134	0.02	ND	ND	0	ND	1.1	ND	0.08	ND	1.02	0.007	0.023
%of Billing Complaints resolved within 4 weeks	100%	100	100	ND	ND	DNP	100	19.13	ND	100	ND	100	100	100
Period of refunds/payments due to customers from the date of resolution	100%	NA	100	ND	ND	100	100	DNP	ND	100	ND	100	100	100

DNP – Data not provided; ND - Not done; NI - No recorded incident by operator; NA – Not applicable.

MSC DATA - POI

	Assam				Bihar					Himachal Pradesh				
	Rel Tel	Bharti	Dishnet	BSNL	Rel Tel	Rel Info	Tata	BSNL	Bharti	Rel Tel	Rel Info	Tata	BSNL	Bharti
Total POIs	7	DNP	ND	DNP	25	25	ND	ND	DNP	11	31	ND	20	16
POIs Not Meeting	4	DNP	ND	DNP	8	0	ND	ND	DNP	DNP	1	ND	0	10

	Jammu & Kashmir			Orissa						North East			
	Dishnet	Bharti	BSNL	Rel Tel	Rel Info	Tata	Dishnet	BSNL	Bharti	Rel Tel	Bharti	Dishnet	BSNL
Total POIs	12	ND	DNP	ND	8	ND	ND	DNP	28	4	7	ND	ND
POIs Not Meeting	1	ND	DNP	ND	0	ND	ND	DNP	9	3	DNP	ND	ND

DNP – Data not provided; ND - Not done;

PRACTICAL DATA – INTER OPERATOR CALL ASSESSMENT

	Assam				Bihar					Himachal Pradesh				
	Rel Tel	Bharti	Dishnet	BSNL	Rel Tel	Rel Info	Tata	BSNL	Bharti	Rel Tel	Rel Info	Tata	BSNL	Bharti
Total Combinations	3	3	3	3	4	4	4	4	4	4	4	4	4	4
POIs Not Meeting	0	0	0	0	0	0	0	0	0	0	2	2	0	0

	Jammu & Kashmir			Orissa						North East			
	Dishnet	Bharti	BSNL	Rel Tel	Rel Info	Tata	Dishnet	BSNL	Bharti	Rel Tel	Bharti	Dishnet	BSNL
Total Combinations	2	2	2	5	5	5	5	5	5	3	3	3	3
POIs Not Meeting	0	0	2	0	0	0	0	0	0	0	0	0	0

ANALYSIS

1. In case of Bihar, the SDCCH and TCH congestion parameters are not met by Rel Tel, Rel Info and Bharti.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	C Circles
Accumulated Down Time of Community Isolation (<24 HOURS)	BSNL – Ori (48.7 Hrs), Tata – HP (31.8Hrs)
Call Setup Success Rate (>95%)	Rel Tel – Bihar (88.72%)
Service Access Delay (9-20SECS)	
SDCCH/ Paging cong (<1%)	Rel Info – Ori (7.7%), Bharti – Bih (5.35%),
TCH cong (<2%)	Rel tel – Bih (11.02%), Rel tel – HP (6.2%), Rel tel – NE (6.46%)



South Asia

Parameters	C Circles
Call Drop rate (<3%)	
% Connections with Good Voice Quality (>95%)	Rel Tel – Bihar (85.18%)
IVR within 20 seconds (80%)	
IVR within 40 seconds (95%)	
Voice within 60 seconds (80%)	
voice within 90 seconds (95%)	
Billing Complains per 100 bills issued (0.1%)	Tata – HP (0.77%),BSNL – J&K (1.1%),Dishnet – Ori (1.02%)
%of Billing Complaints resolved within 4 weeks (100%)	BSNL – HP (0%)
Period of refunds/payments due to customers from the date of resolution (<4 WEEKS)	

3.6.2 PERFORMANCE REPORT QOS - BASIC

Parameters/ Benchmarks		Delhi				Mumbai				Chennai			Kolkatta	
		MTNL	Bharti	Tata Wireline	Reliance	MTNL	Bharti	Tata Wireline	Rel Info Wireline	BSNL	Airtel	Reliance Wireline	BSNL	Reliance Wireline
Quality of Services														
Provision of Telephone after registration of demand	100%	98.83	90.1	ND	48	51.30	86.8	57.86	35.93	23.92	ND	67	72.83	49.50
Fault Incidences	<5	6.44	3.44	ND	1.58	10.56	4.25	3.38	2.586	3.55	ND	1.87	6.17	2.175
Fault repair by Next Working Day	>90%	92.06	92	ND	99.79	59.82	71.3	98.3	99.81	35.9	ND	98.12	83.53	97.45
Mean time for Repair	<8 Hrs	5.57	12.41	ND	4.1	29.82	44.35	5.18	5.16	5.91	ND	4	9.75	2.25
Junction to Local Exch	0.002	0.0013	0.0027	ND	0	0.34	0.09	0	0	DNP	ND	1.81	0.98	1.81
Tax to Local	0.005	0	NA	ND	1.05	0.033	0.09	0	0	DNP	ND	0.37	0.002	0.37
Local to Tax	0.005	0	0.00033	ND	2.02	0.35	NA	NA	0.1	DNP	ND	0.90	0.0008	0.9
Tax-tax	0.005	DNP	NA	ND	1.23	NA	NA	NA	0	DNP	ND	1.63	NA	1.63
Intra Office	>55%	56.45	55.3	ND	49.81	63	47.6	90.86	52.92	DNP	ND	54.78	59.25	51.35
Metering & Billing Credibility	< 0.1%	0.043	0.33	ND	15	ND	2.91	0.012	0.13	DNP	0.033	0.07	DNP	0.09
Shift	95%	81.6	34.3	ND	81.91	ND	27.3	53.13	58.69	DNP	29.80	95.2	76.8	79.16
Closure	95%	70.69	0	ND	65.72	ND	40.1	NA	28.25	DNP	87	58.63	100	18.18

Parameters/ Benchmarks		Delhi				Mumbai				Chennai			Kolkatta	
		MTNL	Bharti	Tata Wireline	Reliance	MTNL	Bharti	Tata Wireline	Rel Info Wireline	BSNL	Airtel	Reliance Wireline	BSNL	Reliance Wireline
Additional Facility	95%	90.66	87.3	ND	99.79	ND	67.9	86.67	99.25	DNP	89	99.90	100	98.51
IVR 20 Sec	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR 40 Sec	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Operator 60 Sec	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Operator 90 Sec	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Time taken for refund of deposits after	100%	97.96	100	ND	0	ND	99.2	18.64	100	100	NI	100	96.4	100

DNP – Data not provided; ND - Not done; NI - No recorded incidents by operator; NA – Not applicable.

ANALYSIS

Metro Circles

1. In Delhi circle, Reliance wireline is not able to meet majority of the benchmark parameters.
2. In Mumbai circle, MTNL is not able to meet majority of the parameters, followed by Bharti.
3. In Kolkatta circle, Reliance wireline is not able to meet the majority of the parameters.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	Metro Circles
Provision of Telephone after registration of demand (100% IN 7 DAYS)	BSNL – Che (24%) Rel Info – Mum (36%) Rel Info – Del (48.6%)
Fault Incidences (<5%)	MTNL – Mum (10.56%)
Fault repair by Next Working Day (90%)	BSNL – Che (36%)
Mean time for Repair (<8 HRS)	MTNL – Mum (29.82 hrs) Bharti – Mum (44.35 hrs), Bharti – Del (12.41%)
Junction between Local Exch (0.002%)	Rel Info – Kol (1.81) BSNL – Kol (0.9)
Outgoing junction from Tax to Local (0.005%)	Rel Info – Del (1.05) Rel Info – Kol (0.37) Rel Info – Chennai (0.87%)
Incoming Junction from Local to Tax (0.005%)	Rel Info – Del (2.02) Rel Info – Kol (0.9) Rel Info – Chennai (0.9%)
Incoming or Outgoing junction between Tax-tax (0.005%)	Rel Info – Del (1.23) Rel Info – Kol (1.63) Rel Info – Chennai (1.63%)
CCR within local network (>55%)	Bharti – Mum (47.6%) Rel Info – Del (49.81%)
Metering and Billing Credibility (<0.10%)	Bharti – Mum (2.91%) Bharti Del (0.33%)
Shift (95% WITH IN 3 DAYS)	Bharti – Mum (27.3%) Bharti – Del (34.3%) Bharti – Chen (29.80%)

Parameters	Metro Circles
Closure (95% WITH IN 24 HOURS)	Rel Info – Mum (28.25%) Rel Info – Kol (18.18%)
Additional Facility (95% WITHIN 24 HOURS)	Bharti – Mum (67.9%)
IVR within 20 seconds (80%)	
IVR within 40 seconds (95%)	
Voice within 60 seconds (80%)	
voice within 90 seconds (95%)	
Time taken for refund of deposit after closure (100% WITHIN 60 DAYS)	Tata – Mum (18.64%), BSNL – Kol (96.48%)

A Circles

Parameters / Benchmarks		AP				Gujarat			Karnataka			Maharashtra			Tamil Nadu		
		BSNL	Bharti	TATA	Reliance	Reliance	BSNL	TATA	BSNL	Bharti	Reliance	Reliance	BSNL	TATA	Reliance	BSNL	Bharti
Quality of Service																	
Provision of Telephone after registration of demand	100%	72.2	82.3	91.3	57.04	69.64	62.4	ND	ND	ND	42.62	51.96	50.6	100	73.48	ND	ND
Fault Incidences	<5	2.14	8.02	2.35	2.56	5.65	3.78	ND	ND	ND	0.373	0.55	8.49	3.995	0.94	ND	ND
Fault repair by Next Working Day	>90%	75.7	97.5	83.45	100	99.38	85.6	ND	ND	ND	97.80	95.60	85	100	95.3	ND	ND
Mean time for Repair	<8 Hrs	9.14	6.2	21.1	4	4	10.6	ND	ND	ND	DNP	DNP	14.4	DNP	4.15	ND	ND
Junction to Local Exch	0.002	0.38	DNP	0.0002	6	0.32	0.36	ND	ND	ND	1.01	1.59	0.31	0.001	2.01	ND	ND

Parameters / Benchmarks		AP				Gujarat			Karnataka			Maharashtra			Tamil Nadu		
		BSNL	Bharti	TATA	Reliance	Reliance	BSNL	TATA	BSNL	Bharti	Reliance	Reliance	BSNL	TATA	Reliance	BSNL	Bharti
Tax to Local	0.005	0.32	DNP	0.0005	3.15	1.77	0.4	ND	ND	ND	2.26	0.72	0.55	0.005	6.08	ND	ND
Local to Tax	0.005	0.38	DNP	0	1.66	9.27	0.45	ND	ND	ND	2.11	16.74	0.43	NA	19.79	ND	ND
Tax-tax	0.005	0	DNP	NA	0.27	0.06	0.42	ND	ND	ND	7.94	0.04	0.41	NA	0.24	ND	ND
Intra Office	>55%	47.5	68.3	80	54.4	51.42	63.5	ND	ND	ND	51.92	54.26	61	90.6	55.24	ND	ND
Metering & Billing Credibility	< 0.1%	0.03	1.89	0.535	0.079	0.13	0.2	ND	ND	ND	0.188	0.07	0.01	0.9	0.059	ND	ND
Shift	95%	73.2	19.3	50.72	79.01	79.89	87.4	ND	ND	ND	95.34	95.2	72.3	77.6	97.67	ND	ND
Closure	95%	68.8	0	0	48.22	63.98	72.5	ND	ND	ND	58.63	21.29	83.3	75.21	47.03	ND	ND
Additional Facility	95%	86.4	99.6	95	99.89	99.73	DNP	ND	ND	ND	99.85	98.86	99.6	60.8	99.96	ND	ND
IVR 20 Sec	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR 40 Sec	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Operator 60 Sec	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Operator 90 Sec	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Time taken for refund of deposits after closures	100%	70.4	0	99.36	NI	NI	73.8	ND	ND	ND	NI	NI	78.3	74.57	NI	ND	ND

DNP – Data not provided; ND - Not done; NI - No recorded incidents by operator; NA – Not applicable.

ANALYSIS

1. In AP, BSNL and Reliance are not able to meet the Grade of Service and Customer Promptness parameters.
2. In Gujarat Reliance and BSNL, are not able to meet the Grade of Service and Customer Promptness parameters.
3. In Karnataka, Reliance is not able to meet the Grade of Service and Customer Promptness parameters.
4. In Maharashtra, Reliance and BSNL are not able to meet the Grade of Service and Customer Promptness parameters.
5. In Tamil Nadu, Reliance is not able to meet the Grade of Service and Customer Promptness parameters.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	A Circles
Provision of Telephone after registration of demand (100% IN 7 DAYS)	Rel Info – Ker (42.6%) ,BSNL – Mah (50.6%),Rel Info – Mah (51.96%)
Fault Incidences (<5%)	BSNL – Mah (8.49%),Bharti – AP (8.02%)
Fault repair by Next Working Day (90%)	BSNL – AP (75.7%)
Mean time for Repair (<8 HRS)	Tata – AP (21.1 hrs)
Junction between Local Exch (0.002%)	Rel Info – TN (2.01), Rel Info – AP (6)
Outgoing junction from Tax to Local (0.005%)	Rel Info – AP (3.15), Rel Info – TN (6.08)
Incoming Junction from Local to Tax (0.005%)	Rel Info – Mah (16.74),Rel Info – TN (19.79)
Incoming or Outgoing junction between Tax-tax (0.005%)	Rel Info – Kar (7.94),
CCR within local network (>55%)	Tata – AP (0.8%),Tata – Mah (0.91%)
Metering and Billing Credibility (<0.10%)	Bharti – AP (1.89%),Tata – Mah (0.9%)
Shift (95% WITH IN 3 DAYS)	Bharti – AP (19.3%),Tata – AP (50.72%)
Closure (95% WITH IN 24 HOURS)	Bharti – AP (0%),Tata – AP (0%)
Additional Facility (95% WITHIN 24 HOURS)	Tata – Mah (60.8%)
IVR within 20 seconds (80%)	
IVR within 40 seconds (95%)	
Voice within 60 seconds (80%)	
Voice within 90 seconds (95%)	
Time taken for refund of deposit after closure (100% WITHIN 60 DAYS)	Bharti – AP (0%)

B Circles

Parameters/ Benchmarks		Haryana			Kerala		MP			Punjab				Rajasthan		
		Airtel	BSNL	Reliance	BSNL	Reliance	Airtel	BSNL	Reliance	Airtel	BSNL	Reliance	HFCL	BSNL	Shyam	Reliance
Quality of Services																
Provision of Telephone after registration of demand	100 %	88.2	71.7	16	ND	53.47	89.57	68.5	67.5	94.8	99.5	69.5	98.312	68.5	ND	74.52
Fault Incidences	<5	2.83	9.69	NI	ND	3.3	3.19	3.94	2.26	3.6	5.01	4.505	1.8	9.45	ND	2.64
Fault repair by Next Working Day	>90 %	92.9	76.5	NI	ND	88.65	96.4	55.6	98.55	95.4	82	99.80	96	83.4	ND	100
Mean time for Repair	<8 Hrs	11.42	11	DNP	ND	DNP	7.11	5.57	4.8	9.85	4.69	4.33	8.44	6.88	ND	5.5
Junction to Local Exch	0.00 2	0.000 1	0.08	0.12	ND	0.12	0	0.09	0.04	0.088	0.22	0.16	0.0001	0	ND	0.04
Tax to Local	0.00 5	NA	0.12	0.41	ND	8.51	NA	0.09	0.33	NA	0.48	2.49	0.0004	0	ND	1.02
Local to Tax	0.00 5	NA	0.09	0.11	ND	3.96	0	0.1	1.02	0.000 4	0.33	0.03	0	0	ND	9.27
Tax-tax	0.00 5	NA	0.33	0.14	ND	0.13	NA	0.09	5.26	NA	DNP	0.1	NA	0.59	ND	0.06
Intra Office	>55 %	80.24	59.7	45.68	ND	61.48	66.7	67.5	53.5	54.18	78.6	51.23	80.81	63.8	ND	51.24
Metering & Billing Credibility	< 0.1%	1.01	0.03	0	ND	0.171	0.01	0.03	0.96	0.15	0	0.029	0.022	0.01	ND	0
Shift	95%	94.3	74.8	87.5	ND	95.34	50.9	98.7	85.11	100	100	81.08	94.4	100	ND	100
Closure	95%	NI	83.6	72.7	ND	83.7	100	100	71.16	94.94	100	78.02	96.8	100	ND	66.66
Additional Facility	95%	87.3	94	99.92	ND	98.42	90.6	100	99.86	89.1	100	99.86	93.6	100	ND	97.78
IVR 20 Sec	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR 40 Sec	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Operator 60 Sec	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Operator 90 Sec	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Parameters/ Benchmarks		Haryana			Kerala		MP			Punjab				Rajasthan		
		Airtel	BSNL	Reliance	BSNL	Reliance	Airtel	BSNL	Reliance	Airtel	BSNL	Reliance	HFCL	BSNL	Shyam	Reliance
Time taken for refund of deposits after closures	100 %	100	50.4	NI	ND	NI	68.3	DNP	NI	DNP	90.3	NI	DNP	100	ND	NI

Parameters/ Benchmarks		UP (E)		UP(W)			West Bengal	
		BSNL	Reliance	Airtel	BSNL	Reliance	BSNL	Reliance
Provision of Telephone after registration of demand	100%	38.7	59.98	93.06	59.1	0	35.8	0
Fault Incidences	<5	9.12	8.3	4.62	16.9	0	9.89	0
Fault repair by Next Working Day	>90%	64.6	95.5	89	65.9	100	79.7	NI
Mean time for Repair	<8 Hrs	11.5	DNP	14.9	8.72	0	9.86	0
Junction to Local Exch	0.002	0.19	0.32	0.02	0.6	7.64	0	1.34
Tax to Local	0.005	0.2	6.48	NA	0.6	0.92	0	20.44
Local to Tax	0.005	0.23	14.81	0	0.71	24.62	NA	0
Tax-tax	0.005	37.6	0.35	NA	NA	0.12	NA	0.15
Intra Office	>55%	59.9	38.37	70.4	61.8	43.73	NA	34.78
Metering & Billing Credibility	< 0.1%	0.03	0.08	1.01	0.06	0	0.34	0
Shift	95%	48.5	70	34.2	98.2	70	33.3	60
Closure	95%	83.6	43.29	DNP	98	41.17	66.7	18.18
Additional Facility	95%	93.9	99.47	87.3	97	60	97.5	98.85
IVR 20 Sec	80%	ND	ND	ND	ND	ND	ND	ND
IVR 40 Sec	95%	ND	ND	ND	ND	ND	ND	ND

Parameters/ Benchmarks		UP (E)		UP(W)			West Bengal	
		BSNL	Reliance	Airtel	BSNL	Reliance	BSNL	Reliance
Operator 60 Sec	80%	ND	ND	ND	ND	ND	ND	ND
Operator 90 Sec	95%	ND	ND	ND	ND	ND	ND	ND
Time taken for refund of deposits after closures	100%	56	NI	100	100	NI	NI	100

DNP – Data not provided; ND - Not done; NI - No recorded incidents by operator; NA – Not applicable.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	B Circles
Provision of Telephone after registration of demand (100% IN 7 DAYS)	Rel Info – UP W (0%),Rel Info – WB (0%),Rel Info – Har (16%),BSNL – UP E (38.7%)
Fault Incidences (<5%)	BSNL – UP W (17%),BSNL – Har (9.7%),BSNL – WB (9.89%),BSNL – Raj (9.45%)
Fault repair by Next Working Day (90%)	BSNL – MP (55.6%)
Mean time for Repair (<8 HRS)	Bharti – UP W (14.9 hrs),BSNL – UP E (11.5 hrs),BSNL – Har (11 hrs),
Junction between Local Exch (0.002%)	Rel Info – UP W (7.64),Rel Info – WB (1.34)
Outgoing junction from Tax to Local (0.005%)	Rel Info – WB (20.44),Rel Info – UP E (6.48),Rel Info – Ker (8.51)
Incoming Junction from Local to Tax (0.005%)	Rel Info – UP W (24.62),Rel Info – UP E (14.81),Rel Info – Raj (9.27)
Incoming or Outgoing junction between Tax-tax (0.005%)	BSNL – UP E (37.6),Rel Info – MP (5.26)
CCR within local network (>55%)	Rel Info – WB (34.78%),Rel Info – UP E (38.37%)
Metering and Billing Credibility (<0.10%)	Bharti – Har (1.9%), Rel Info – MP (0.96%),Bharti – UP W (1.01%)
Shift (95% WITH IN 3 DAYS)	Bharti – UP W (34.2%),BSNL – WB (33.3%),Bharti – Har (34.3%)

Closure (95% WITH IN 24 HOURS)	Reliance (Kerala) (33.7%)
Additional Facility (95% WITHIN 24 HOURS)	Rel Info – UP W (60%)
IVR within 20 seconds (80%)	
IVR within 40 seconds (95%)	
Voice within 60 seconds (80%)	
voice within 90 seconds (95%)	
Time taken for refund of deposit after closure (100% WITHIN 60 DAYS)	Haryana BSNL (50.4%), BSNL WB (0%)

C Circles

Parameters/ Benchmarks		Assam	Bihar		HP		NE	Orissa		J&K	Chattisgarh	
		BSNL	BSNL	Reliance	BSNL	Reliance	BSNL	Reliance	BSNL	BSNL	Reliance	BSNL
Provision of Telephone after registration of demand	100%	24.07	ND	NI	48.8	NI	ND	50	53.6	50	51.35	73.2
Fault Incidences	<5	9.7	ND	NI	7.43	NI	ND	0.125	4.53	7.6	8.71	8.23
Fault repair by Next Working Day	>90%	65.7	ND	NI	96.6	NI	ND	100	98.9	93.9	60.99	84.8
Mean time for Repair	<8 Hrs	17.05	ND	2.5	8.41	5.33	ND	2.18	4.17	26	18.78	11.2
Junction to Local Exch	0.002	0.54	ND	0.21	0.01	0	ND	12.04	0	0.23	0.108	0.11
Tax to Local	0.005	0.56	ND	4.06	0	0.07	ND	14.47	0	0.87	0	0

Parameters/ Benchmarks		Assam	Bihar		HP		NE	Orissa		J&K	Chattisgarh	
		BSNL	BSNL	Reliance	BSNL	Reliance	BSNL	Reliance	BSNL	BSNL	Reliance	BSNL
Local to Tax	0.005	0.8	ND	27.81	0	0.16	ND	0.01	0	0.49	0	0.95
Tax-tax	0.005	0.763	ND	0.23	0.14	4.54	ND	39.04	DNP	0.58	DNP	DNP
Intra Office	>55%	16.89	ND	40.57	69.4	50.48	ND	43.79	72.3	50	66.28	75.2
Metering & Billing Credibility	< 0.1%	0.19	ND	0	0	NI	ND	0	0.07	DNP	0.015	.01
Shift	95%	100	ND	NI	50	DNP	ND	NI	75	DNP	80	95
Closure	95%	DNP	ND	NI	99.8	DNP	ND	NI	100	DNP	100	100
Additional Facility	95%	DNP	ND	100	100	DNP	ND	100	100	DNP	100	100
IVR 20 Sec	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IVR 40 Sec	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Operator 60 Sec	80%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Operator 90 Sec	95%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Time taken for refund of deposits after closures	100%	88.8	ND	NI	81.2	NI	ND	NI	100	DNP	100	100

DNP – Data not provided; ND - Not done; NI - No recorded incidents by operator;

ANALYSIS

- Majority of the operators are not meeting the Grade of Service and Provision of Telephone after registration of Demand parameters.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	C Circles
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Parameters	C Circles
Provision of Telephone after registration of demand (100% IN 7 DAYS)	Rel Info – HP (0%), Rel Info – Bihar (0%)
Fault Incidences (<5%)	BSNL – HP (7.43%), BSNL – J&K (7.6%), BSNL – Ass (9.7%)
Fault repair by Next Working Day (90%)	BSNL – Assam (65.7%), Rel Tel – CTG (60.99%)
Mean time for Repair (<8 HRS)	BSNL – Assam (17.05 hrs), BSNL – JK (26%)
Junction between Local Exch (0.002%)	Rel Info – Orissa (12.4)
Outgoing junction from Tax to Local (0.005%)	Rel Info – Orissa (14.47)
Incoming Junction from Local to Tax (0.005%)	Rel Info – Bihar (27.81)
Incoming or Outgoing junction between Tax-tax (0.005%)	Rel Info – Orissa (39.04)
CCR within local network (>55%)	BSNL – Assam (16.89%)
Metering and Billing Credibility (<0.10%)	BSNL – Assam (0.19%)
Shift (95% WITH IN 3 DAYS)	BSNL – HP (50%)
Closure (95% WITH IN 24 HOURS)	BSNL – HP (99.8%)
Additional Facility (95% WITHIN 24 HOURS)	
IVR within 20 seconds (80%)	
IVR within 40 seconds (95%)	
Voice within 60 seconds (80%)	
voice within 90 seconds (95%)	
Time taken for refund of deposit after closure (100% WITHIN 60 DAYS)	BSNL – HP (81.2%)



South Asia

PERFORMANCE REPORT CSS-CELLULAR

No. of samples Covered during Customer satisfaction survey are given below :

STATE	Basic	Mobile	Total	STATE	Basic	Mobile	Total
AP	784	2124	2908	Maharastra	1157	1780	2937
Assam	235	388	623	MP	955	1356	2311
Bihar	443	789	1232	Mumbai	2058	3461	5519
Chennai	2166	3186	5352	NE	451	409	860
Delhi	2411	3920	6331	Orissa	647	1003	1650
Gujrat	673	1242	1915	Punjab	759	783	1542
Haryana	726	1109	1835	Rajasthan	849	867	1716
HP	460	703	1163	TN	1575	1590	3165
J & K	259	484	743	UP (E)	490	1194	1684
Karnataka	996	3236	4232	UP (W)	640	1175	1815
Kerala	702	1409	2111	WB	208	657	865
Kolkata	1188	2181	3369				
Grand Total	20832	35046	55878				



South Asia

Metro Circles

- In respect of metro circles, in Delhi only Bharti and Hutch have attained the overall customer satisfaction level. The lowest overall customer satisfaction level is with MTNL (88%). In Mumbai only Tata has achieved the benchmark. The lowest is with Hutch (87%). In Kolkata and Chennai none of the operator is meeting the benchmark.

Parameters / Benchmarks		Delhi						Mumbai						Kolkata				
		Bharti	Hutch	Tata	Idea	MTNL	Rel Info	Bharti	Hutch	Tata	BPL	MTNL	Rel Info	Bharti	Hutch	Tata	BSNL	Rel Info
% Satisfied with provision of service	95%	97	99	97	97	84	97	96	86	96	92	91	91	97	98	ND	93	97
Prepaid	90%	95	98	99	97	95	98	88	90	97	94	93	92	94	96	ND	89	94
Post Paid	90%	98	97	96	97	87	96	98	97	100	97	97	97	99	94	ND	93	97
% Satisfied with help services	90%	71	70	67	68	62	70	74	70	86	78	76	73	73	70	ND	68	72
% Satisfied with Network Performance	95%	92.9	93.1	84.7	84	74.3	86.3	92.9	90	95.8	91.8	84.2	92.3	86.3	84.4	ND	68.4	79.3
% Satisfied with maintainability	95%	73	75	71	62	34	48	51	44	38	29	42	26	72	65	ND	57	72
Overall customer satisfaction	95%	95	95	93	93	88	93	90	87	95	90	91	89	90	92	ND	83	90
Customer satisfaction with offered supplementary services	95%	97	98	97	97	91	95	95	95	97	94	96	94	94	96	ND	87	95



South Asia

		Chennai				
	Mobile	Bharti	Hutch	Tata	BSNL	Rel Info
% Satisfied with provision of service	95%	98	98	100	95	99
Prepaid	90%	99	99	99	96	100
Post Paid	90%	99	98	100	93	97
% Satisfied with help services	90%	88	93	97	83	93
% Satisfied with Network Performance	95%	78.3	80.5	79	76.2	81.3
% Satisfied with maintainability	95%	53	37	82	62	44
Overall customer satisfaction	95%	91	93	92	88	93
Customer satisfaction with offered supplementary services	95%	95	96	85	91	95

Legends:-

DNP – Data not provided; ND - Not done; NI - No incident; NA – Not applicable.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	Metro Circles
Satisfied with Provision of Service (90%)	
Pre-paid Customers (90%)	
Post paid Customers (90%)	



South Asia

Parameters	Metro Circles
% Satisfied with help services (95%)	MTNL – Delhi (62%),Tata – Delhi (67%),Idea – Delhi (68%),BSNL – Kol (68%)
% Satisfied with Network Performance (95%)	BSNL – Kol (68%),MTNL – Delhi (74%),BSNL – Chen (76%)
% Satisfied with maintainability (95%)	Rel Info – Mum (26%),BPL – Mum (29%),MTNL – Del (34%)
Overall customer satisfaction (95%)	
Satisfaction with supplementary services (95%)	

A Circles

- In A circles, in Maharashtra all the operators (except BPL which was not surveyed) are meeting the benchmark. The lowest overall customer satisfaction level of all the operators is in Gujarat circle.

Parameters / Benchmarks		AP						Gujrat						Karnataka					
		Bharti	Hutch	Tata	BSNL	Reliance	Idea	Bharti	Hutch	Tata	BSNL	Reliance	Idea	Bharti	SPICE	BSNL	Reliance	Hutch	Tata
% Satisfied with provision of service	95%	95	99	100	ND	99	99	96	95	98	97	94	97	99	99	100	98	99	100
Prepaid	90%	98	99	99	ND	98	99	80	74	90	89	76	75	100	99	99	100	98	97
Post Paid	90%	99	98	100	ND	99	100	99	100	97	97	100	100	100	100	100	100	99	100
% Satisfied with help services	90%	96	95	97	ND	94	93	96	95	96	92	97	94	87	95	87	97	93	96
% Satisfied with Network Performance	95%	81	77.8	79	ND	80.7	79.1	80.8	79.2	78.9	78.2	80.1	79.7	72.1	74.8	83	81	70.7	81
% Satisfied with maintainability	95%	81	80	82	ND	80	87	98	95	ND	98	100	100	88	85	79	100	80	80
Overall customer satisfaction	95%	93	93	92	ND	92	92	85	85	89	84	86	85	89	91	85	94	83	90



South Asia

Parameters / Benchmarks		AP						Gujrat						Karnataka					
		Bharti	Hutch	Tata	BSNL	Reliance	Idea	Bharti	Hutch	Tata	BSNL	Reliance	Idea	Bharti	SPICE	BSNL	Reliance	Hutch	Tata
Customer satisfaction with offered supplementary services	95%	92	97	85	ND	82	83	68	72	83	77	74	74	91	87	74	83	89	65

Parameters/ Benchmarks		Maharashtra						Tamil Nadu					
		Reliance	Bharti	BSNL	BPL	TATA	Idea	Reliance	Bharti	Aircel	BSNL	Tata	Hutch(B PL)
% Satisfied with provision of service	95%	98	97	100	ND	100	94	99	99	ND	98	ND	95
Prepaid	90%	99	99	100	ND	100	100	98	98	ND	97	ND	96
Post Paid	90%	99	100	99	ND	100	99	99	100	ND	98	ND	86
% Satisfied with help services	90%	89	95	96	ND	93	92	87	85	ND	93	ND	70
% Satisfied with Network Performance	95%	90.6	91.4	91.5	ND	91.4	90.7	76.2	76.2	ND	74.3	ND	87.1
% Satisfied with maintainability	95%	80	80	60	ND	80	29	86	90	ND	79	ND	83
Overall customer satisfaction	95%	95	96	97	ND	97	96	93	92	ND	90	ND	88
Customer satisfaction with offered supplementary services	95%	96	98	98	ND	97	97	97	96	ND	91	ND	82



South Asia

Legends:- DNP – Data not provided; ND - Not done; NI - No incident; NA – Not applicable.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	A Circles
Satisfied with Provision of Service (90%)	
Pre-paid Customers (90%)	BSNL – Guj (69%),Hutch – Guj (74%),Idea – Guj (75%)
Post paid Customers (90%)	
% Satisfied with help services (95%)	Hutch (BPL) – TN (70%)
% Satisfied with Network Performance (95%)	BSNL – Kar (63%),Hutch – Kar (70.7%),Bharti – Kar (72.1%)
% Satisfied with maintainability (95%)	Tata – Mah (0%),Idea – Mah (29%),Bharti – Mah (30%),Rel Info (30%)
Overall customer satisfaction (95%)	
Satisfaction with supplementary services (95%)	Tata – Kar (65%),Bharti – Guj (68%),Hutch – Guj (72%)

B Circles

- In category B circles, only Idea, Kerala and Reliance, Punjab are meeting the overall customer satisfaction level. In Kerala and Punjab the overall customer satisfaction level of all other operators are near the benchmark. However, in West Bengal this level is lowest among all the operators.



South Asia

Parameters/ Benchmarks		Haryana						Kerala						MP					
		Hutch	Idea	Reliance	BSNL	Tata	Bharti	Hutch (BPL)	Bharti	BSNL	Tata	Idea	Reliance	Reltel	Idea	Reliance	BSNL	Tata	Bharti
% Satisfied with provision of service	95%	95	86	93	90	ND	94	89	98	97	ND	100	99	95	94	94	74	ND	97
Prepaid	90%	96	94	96	94	ND	96	99	99	97	ND	100	99	89	90	93	88	ND	95
Post Paid	90%	86	86	88	91	ND	87	96	91	91	ND	99	97	100	98	98	94	ND	97
% Satisfied with help services	90%	70	67	71	79	ND	72	76	72	77	ND	64	73	78	77	79	79	ND	79
% Satisfied with Network Performance	95%	87.1	90.1	89.4	81.6	ND	93	81	81.7	78.4	ND	83.4	81.2	67.1	67.4	67.3	70.1	ND	69.2
% Satisfied with maintainability	95%	83	43	99	83	ND	76	100	10	100	ND	100	100	93	91	93	92	ND	95
Overall customer satisfaction	95%	88	87	89	87	ND	90	93	91	90	ND	96	94	86	85	86	83	ND	87
Customer satisfaction with offered supplementary services	95%	82	78	83	86	ND	86	96	86	96	ND	100	100	92	89	90	93	ND	85



South Asia

Parameters/ Benchmarks		Punjab							Rajasthan					UP (E)				
		Spice	Hutch	Reliance	BSNL	Tata	HFCL	Bharti	Hutch	Bharti	BSNL	Tata	Reliance	Hutch	Bharti	BSNL	Tata	Reliance
% Satisfied with provision of service	95%	99	98	100	98	ND	ND	91	96	94	95	ND	93	85	87	84	ND	84
Prepaid	90%	100	98	99	97	ND	ND	98	96	95	98	ND	88	96	95	95	ND	97
Post Paid	90%	92	95	99	99	ND	ND	94	86	83	84	ND	91	95	85	97	ND	99
% Satisfied with help services	90%	78	84	82	78	ND	ND	69	76	78	80	ND	73	56	62	68	ND	66
% Satisfied with Network Performance	95%	87	87.5	93.8	86.3	ND	ND	94.1	79.3	78	70	ND	71.4	71.6	75.3	61.6	ND	74.6
% Satisfied with maintainability	95%	70	64	78	66	ND	ND	78	73	74	72	ND	56	40	51	27	ND	42
Overall customer satisfaction	95%	92	93	96	91	ND	ND	94	85	88	87	ND	85	81	81	77	ND	85
Customer satisfaction with offered supplementary services	95%	95	94	98	91	ND	ND	92	98	99	98	ND	98	80	78	65	ND	79



South Asia

Parameters / Benchmarks		UP(W)						West Bengal						
		Hutch	Idea	BSNL	Tata	Relince	Bharti	Rel tel	Hutch	Reliance	BSNL	Tata	Dishnet	Bharti
% Satisfied with provision of service	95%	98	97	96	ND	100	95	79	95	63	63	ND	ND	90
Prepaid	90%	98	96	96	ND	96	94	88	87	74	63	ND	ND	88
Post Paid	90%	71	89	93	ND	94	80	99	97	98	98	ND	ND	100
% Satisfied with help services	90%	80	75	75	ND	75	77	54	59	50	86	ND	ND	54
% Satisfied with Network Performance	95%	69.4	75.1	63.6	ND	75.2	82.4	67.8	74.1	60	59.6	ND	ND	63.2
% Satisfied with maintainability	95%	97	96	93	ND	60	79	56	60	40	39	ND	ND	45
Overall customer satisfaction	95%	83	86	84	ND	88	87	82	84	71	71	ND	ND	81
Customer satisfaction with offered supplementary services	95%	94	97	98	ND	98	97	92	98	83	83	ND	ND	97

Legends:-DNP – Data not provided; ND - Not done; NI - No incident; NA – Not applicable.



South Asia

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	B Circles
Satisfied with Provision of Service (90%)	BSNL – UP E (34%),Rel Info – WB (63%)BSNL – WB (63%),BSNL – MP (74%)
Pre-paid Customers (90%)	BSNL – WB (63%),Rel Info – WB (74%)
Post paid Customers (90%)	Hutch – Raj (66%),Hutch – UP W (71%)
% Satisfied with help services (95%)	Rel Info – WB (50%),Rel Tel – WB (54%),Bharti - WB (54%),Hutch – UP E (56%)
% Satisfied with Network Performance (95%)	BSNL – WB (59.6%),Rel Info – WB (60%),BSNL – UP E (61.6%)
% Satisfied with maintainability (95%)	Bharti – Ker (10%),BSNL – UP E (27%),BSNL – WB (39%)
Overall customer satisfaction (95%)	BSNL – WB (71%),Rel Info – WB (71%),BSNL – UP E (77%)
Satisfaction with supplementary services (95%)	BSNL – UP E (65%),Idea – Har (78%),Bharti – UP E (78%),Rel Info – UP E (79%)

C Circles

- In C circles none of the operators has achieved the benchmark. The level of overall customer satisfaction is in the range of 78% to 92%.



South Asia

Parameters / Benchmarks		ASSAM				BIHAR					HP				
		Rel tel	Bharti	Dishnet	BSNL	Rel tel	Reliance	Tata	BSNL	Bharti	Rel tel	Reliance	Tata	BSNL	Bharti
% Satisfied with provision of service	95%	99	ND	ND	92	95	92	ND	92	97	99	98	98	98	100
Prepaid	90%	98	ND	ND	93	97	97	ND	97	97	99	98	98	97	98
Post Paid	90%	82	ND	ND	91	100	100	ND	100	99	93	85	85	85	89
% Satisfied with help services	90%	63	ND	ND	65	33	39	ND	39	34	65	67	67	78	72
% Satisfied with Network Performance	95%	58	ND	ND	66.9	76.9	68.1	ND	68.1	76.6	85.6	84.7	84.7	84.7	95
% Satisfied with maintainability	95%	84	ND	ND	55	87	74	ND	74	89	70	28	28	23	3
Overall customer satisfaction	95%	80	ND	ND	84	87	80	ND	80	87	92	88	88	88	91
Customer satisfaction with offered supplementary services	95%	99	ND	ND	96	85	68	ND	68	84	97	92	92	89	89

Parameters/ Benchmarks		NE				J & K			ORISSA					
		Rel tel	Bharti	Dishnet	BSNL	Dishnet	Bharti	BSNL	Rel tel	Reliance	Tata	Dishnet	BSNL	Bharti
% Satisfied with provision of service	95%	99	94	ND	93.6	ND	98	100	95	95	ND	ND	84	97
Prepaid	90%	100	100	ND	100	ND	99	100	96	94	ND	ND	94	96
Post Paid	90%	93	89	ND	59	ND	88	70	99	100	ND	ND	95	96
% Satisfied with help services	90%	50	57	ND	73	ND	75	78	60	58	ND	ND	59	58
% Satisfied with Network Performance	95%	62.3	60.2	ND	60	ND	87.4	77.4	52.2	57.3	ND	ND	57.2	65.6



South Asia

Parameters/ Benchmarks		NE				J & K			ORISSA					
		Rel tel	Bharti	Dishnet	BSNL	Dishnet	Bharti	BSNL	Rel tel	Reliance	Tata	Dishnet	BSNL	Bharti
% Satisfied with maintainability	95%	78	64	ND	64	ND	20	15	69	78	ND	ND	69	77
Overall customer satisfaction	95%	81	78	ND	78	ND	91	83	81	83	ND	ND	80	86
Customer satisfaction with offered supplementary services	95%	94	89	ND	89	ND	97	94	98	98	ND	ND	85	99

Legends:- DNP – Data not provided; ND - Not done; NI - No incident; NA – Not applicable.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	C Circles
Satisfied with Provision of Service (90%)	
Pre-paid Customers (90%)	
Post paid Customers (90%)	BSNL – NE (59%),BSNL – J&K (70%)
% Satisfied with help services (95%)	Rel Tel – Bihar (33%),Bharti – Bihar (34%),BSNL – Bihar (39%),Rel Info – Bihar (39%)
% Satisfied with Network Performance (95%)	Rel Tel – Orissa (52%),BSNL – Orissa (57.2%),Rel Info – Orissa (57.3%)
% Satisfied with maintainability (95%)	Bharti – HP (3%),BSNL – J&K (15%),Bharti – J&K (20%)
Overall customer satisfaction (95%)	BSNL – NE (78%),Bharti – NE (78%)
Satisfaction with supplementary services (95%)	BSNL – Bihar (68%),Rel Info – Bihar (68%)



South Asia

PERFORMANCE RESULTS CSS - BASIC

Metro Circles

Parameters related to Maintainability and **Overall Customer Satisfaction level** are not met by any operators in Metro circle.

Parameters/ Benchmarks		Delhi				Mumbai				Chennai			Kolkatta	
		MTNL	Bharti	Tata Wireline	Reliance	MTNL	Bharti	Tata Wireline	Rel Info Wireline	BSNL	Airtel	Reliance Wireline	BSNL	Reliance Wireline
% Satisfied with provision of service	>95	93.5	98.4	ND	94.4	83.5	ND	94.7	95.1	56.5	94	94.6	85.4	92.3
% Satisfied with billing performance	>90	89.7	89.8	ND	84.3	95.2	ND	93.3	95.4	76.3	63	81.7	76.3	75.4
% Satisfied with help services	>90	74.1	71.7	ND	68.9	89.7	ND	91	81.7	71.1	84	89.5	57.9	65.1
% Satisfied with Network Performance	>95	92	97.5	ND	94.8	92.5	ND	94.2	96.8	85.4	60	87.5	84.3	83.8
% Satisfied with maintainability	>95	16	45	ND	36	60	ND	70	76	46	71	87	21	31
Overall customer satisfaction	>95	74	85	ND	80	86	ND	89	91	74	73	89	71	74
Customer satisfaction with offered supplementary services	>95	97	100	ND	99.8	92.5	ND	94.6	98.2	93.7	95	96.5	89.8	95.6



South Asia

Legends:-DNP – Data not provided; ND - Not done; NI - No incident; NA – Not applicable.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	Metro Circles
% Satisfied with provision of service (90%)	BSNL – Chen (56.5%)
% Satisfied with Billing services (90%)	Bharti – Chen (63%)
% Satisfied with help services (95%)	BSNL – Kol (57.9%),Rel Info – Kol (65.1%),Rel Info – Delhi (68.9%)
% Satisfied with Network Performance (95%)	Bharti – Chen (60%)
% Satisfied with maintainability (95%)	MTNL – Delhi (16%),BSNL – Kol (21%),Rel Info – Kol (31%)
Overall customer satisfaction (95%)	BSNL – Kol (71%),Bharti – Chen (73%),BSNL – Chenn (74%),MTNL – Delhi (74%)
Satisfaction with supplementary services (95%)	



South Asia

A Circles

Parameters / Benchmarks		AP				Gujarat			Karnataka			Maharashtra			Tamil Nadu		
		BSNL	Bharti	TATA	Reliance	Reliance	BSNL	TATA	BSNL	Bharti	Reliance	Reliance	BSNL	TATA	Reliance	BSNL	Bharti
% Satisfied with provision of service	>95	90.6	ND	96.3	96.9	97.7	92	93	97	100	ND	99.3	94	95	99.6	91.1	98.2
% Satisfied with billing performance	>90	95.5	ND	94.7	93.1	93.6	80.8	81	97.6	100	ND	97.7	94.8	91.4	92.2	80.5	86.8
% Satisfied with help services	>90	98.3	ND	94.3	94.5	92.6	76.3	80	97.3	80	ND	81.6	88.3	69.8	74.8	89.5	74.8
% Satisfied with Network Performance	>95	87.9	ND	80.3	85.4	98.8	98.6	98	97.3	93.8	ND	92.6	92.1	87.2	90.4	77.4	67.6
% Satisfied with maintainability	>95	4	ND	57	51	76	1	50	5	0	ND	80	40	26	48	38	33
Overall customer satisfaction	>95	77	ND	86	86	92	72	87	80	76	ND	92	83	77	84	76	70
Customer satisfaction with offered supplementary services	>95	73.7	ND	95.4	88.6	96.7	60	100	85.3	90	ND	95.9	98	94.9	100	98.5	93

Legends:-DNP – Data not provided; ND - Not done; NI - No incident; NA – Not applicable.

The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:



South Asia

Parameters	A Circles
% Satisfied with provision of service (90%)	
% Satisfied with Billing services (90%)	Bharti – TN (66.8%)
% Satisfied with help services (95%)	Tata – Mah (69.8%), Rel Info – TN (74.8%), Bharti – TN (74.8%)
% Satisfied with Network Performance (95%)	Bharti – TN (67.6%), BSNL – TN (77.4%)
% Satisfied with maintainability (95%)	Bharti – Kar (0%), BSNL – Guj (1%), BSNL – AP (4%), BSNL – Kar (5%)
Overall customer satisfaction (95%)	Bharti – TN (70%), BSNL – Guj (72%), Bharti – Kar (76%), BSNL – TN (76%)
Satisfaction with supplementary services (95%)	BSNL – Guj (60%), BSNL – AP (73.7%)

B Circles

Parameters related to **Help Line Service, Network performance and Overall Customer Satisfaction** level are not met by any operators in B circle.

Parameters/ Benchmarks		Haryana			Kerala		MP			Punjab				Rajasthan		
		Airtel	BSNL	Reliance	BSNL	Reliance	Airtel	BSNL	Reliance	Airtel	BSNL	Reliance	HFCL	BSNL	Shyam	Reliance
% Satisfied with provision of service	>95	99.3	77.2	98	96.9	100	94.5	67.1	93.5	ND	88.9	93.3	100	69.5	93.5	99.5
% Satisfied with billing performance	>90	94.7	92.6	94	99.9	99.9	82.6	78.9	68	ND	95.9	92.3	96.8	93.2	95.9	97.6



South Asia

Parameters/ Benchmarks		Haryana			Kerala		MP			Punjab				Rajasthan		
		Airtel	BSNL	Reliance	BSNL	Reliance	Airtel	BSNL	Reliance	Airtel	BSNL	Reliance	HFCL	BSNL	Shyam	Reliance
% Satisfied with help services	>90	73.3	92.7	70.7	60	60	79.6	79.8	81.5	ND	81	89	72.6	76.1	77.1	74.9
% Satisfied with Network Performance	>95	95.9	87.9	93.5	99.7	99.8	94.5	94.6	96	ND	96.4	97.4	99.4	89	94.8	95
% Satisfied with maintainability	>95	26	7	20	98	99	40	3	73	ND	26	33	10	8	36	32
Overall customer satisfaction	>95	82	74	81	99	99	75	70	85	ND	81	83	81	75	83	83
Customer satisfaction with offered supplementary services	>95	100	100	100	100	99.8	100	100	100	ND	100	100	100	89	99.4	95.7

Parameters/ Benchmarks		UP (E)		UP(W)			West Bengal	
		BSNL	Reliance	Airtel	BSNL	Reliance	BSNL	Reliance
% Satisfied with provision of service	>95	37.1	86	79.1	80	99.2	60.8	ND
% Satisfied with billing performance	>90	63.2	91	55.9	52.6	81.3	90	ND
% Satisfied with help services	>90	56.2	80.7	84.8	71	70.6	48.7	ND
% Satisfied with Network Performance	>95	63.8	80.3	74.1	70.1	83.6	65.3	ND



South Asia

Parameters/ Benchmarks		UP (E)		UP(W)			West Bengal	
		BSNL	Reliance	Airtel	BSNL	Reliance	BSNL	Reliance
% Satisfied with maintainability	>95	7	77	39	18	9	41	ND
Overall customer satisfaction	>95	55	87	78	69	76	65	ND
Customer satisfaction with offered supplementary services	>95	100	89	100	100	95.5	67.9	ND

The **Legends**:-DNP – Data not provided; ND - Not done; NI - No incident; NA – Not applicable.

operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	B Circles
% Satisfied with provision of service (90%)	BSNL – UP E (37.1%),BSNL – WB (60.8%),BSNL – MP (67.1%)
% Satisfied with Billing services (90%)	BSNL – UP W (52.6%),Bharti – UP W (55.9%),BSNL – UP E (63.2%)
% Satisfied with help services (95%)	BSNL – WB (48.7%),BSNL – UP E (56.2%),BSNL – Ker (60%),Rel Info – Ker (60%)
% Satisfied with Network Performance (95%)	BSNL – UP E (63.8%),BSNL – WB (65.3%),BSNL – UP W (70.1%)
% Satisfied with maintainability (95%)	BSNL – MP (3%),BSNL – Har (7%),BSNL – UP E (7%),BSNL – Raj (8%)
Overall customer satisfaction (95%)	BSNL – UP E (55%),BSNL – WB (65%),BSNL – UP W (69%)
Satisfaction with supplementary services (95%)	BSNL – WB (67.9%)



South Asia

C Circles

Parameters related to **Maintainability, Help Line service, Network performance and Overall Customer Satisfaction** level are not met by any of the operators in C circle.

Parameters/ Benchmarks		Assam	Bihar		HP		NE	Orissa			J&K	Chattisgarh	
		BSNL	BSNL	Reliance	BSNL	Reliance	BSNL	Reliance	BSNL	BSNL	Reliance	BSNL	
% Satisfied with provision of service	>95	84.3	71.6	87.3	62	NA	77.3	92.3	59.7	50	NA	NA	ND
% Satisfied with billing performance	>90	51.3	24.9	22.2	93.5	NA	46.5	46	54.2	93.8	NA	NA	ND
% Satisfied with help services	>90	55.4	39.8	22.8	76	NA	49.1	55.5	53.3	77.8	NA	NA	ND
% Satisfied with Network Performance	>95	69.1	42	20.5	92.5	NA	72.3	78.7	71.1	93.7	NA	NA	ND
% Satisfied with maintainability	>95	2	7	11	0	NA	0	17	4	0	NA	NA	ND
Overall customer satisfaction	>95	57	37	30	70	NA	54	64	56	69	NA	NA	ND
Customer satisfaction with offered supplementary services	>95	100	20.4	16.4	100	NA	100	100	88	100	NA	NA	ND



South Asia

Legends:-DNP – Data not provided; ND - Not done; NI - No incident; NA – Not applicable.

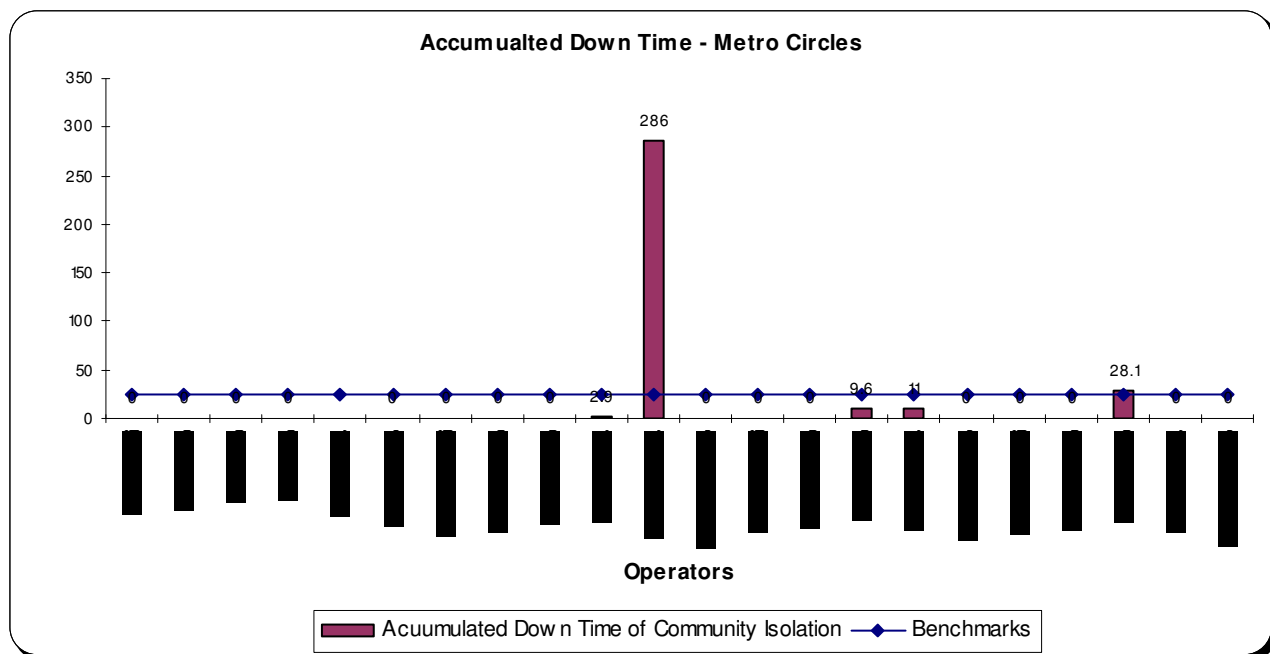
The operators whose performance on a particular parameter is significantly lower than the benchmark are detailed as below:

Parameters	C Circles
% Satisfied with provision of service (90%)	BSNL – J&K (50%),BSNL – Orissa (59.7%),BSNL – HP (62%)
% Satisfied with Billing services (90%)	Rel Info – Bihar (22.2%),BSNL – Bihar (24.9%),Rel Info – Orissa (46%)
% Satisfied with help services (95%)	Rel Info – Bihar (22.8%),BSNL – Bihar (39.8%),BSNL – NE (49.1%)
% Satisfied with Network Performance (95%)	Rel Info – Bihar (20.5%),BSNL – Bihar (42%),BSNL - Assam (69.1%)
% Satisfied with maintainability (95%)	BSNL – HP (0%),BSNL – NE (0%),BSNL – J&K (0%)
Overall customer satisfaction (95%)	Rel Info – Bihar (30%),BSNL – Bihar (37%),BSNL – NE (54%)
Satisfaction with supplementary services (95%)	Rel Info – Bihar (16.4%),BSNL – Bihar (20.4%)

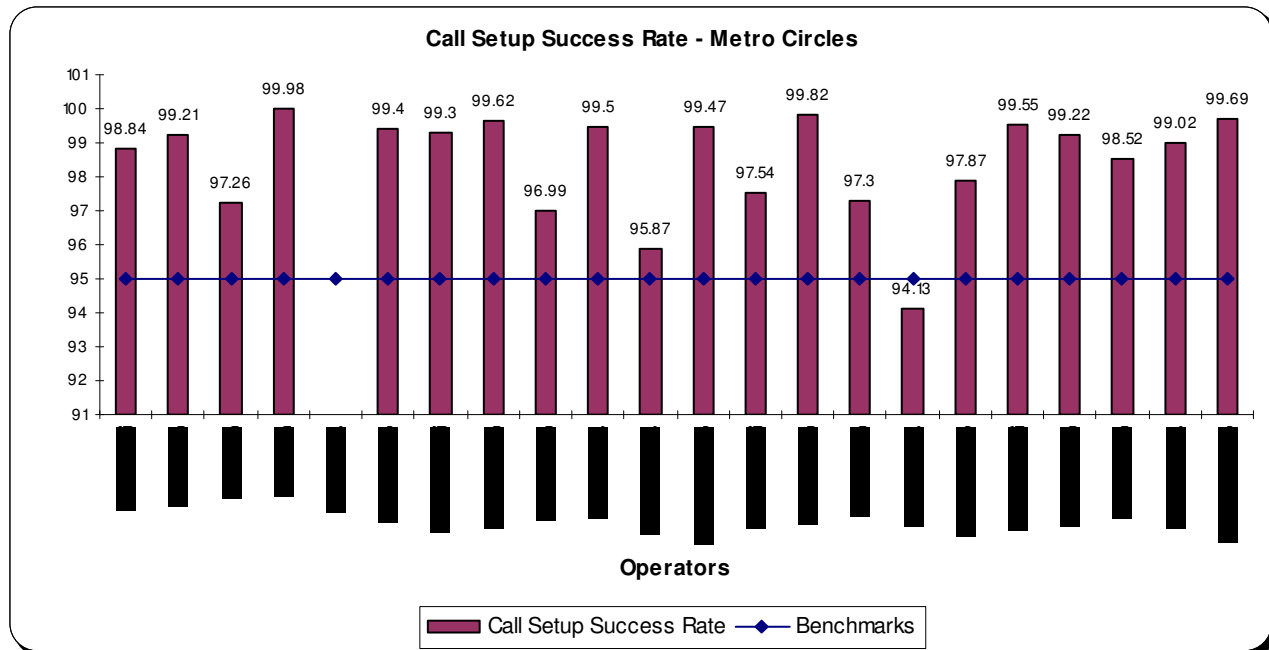
4. GRAPHICAL REPRESENTATION OF RESULTS

4.1 QOS CELLULAR

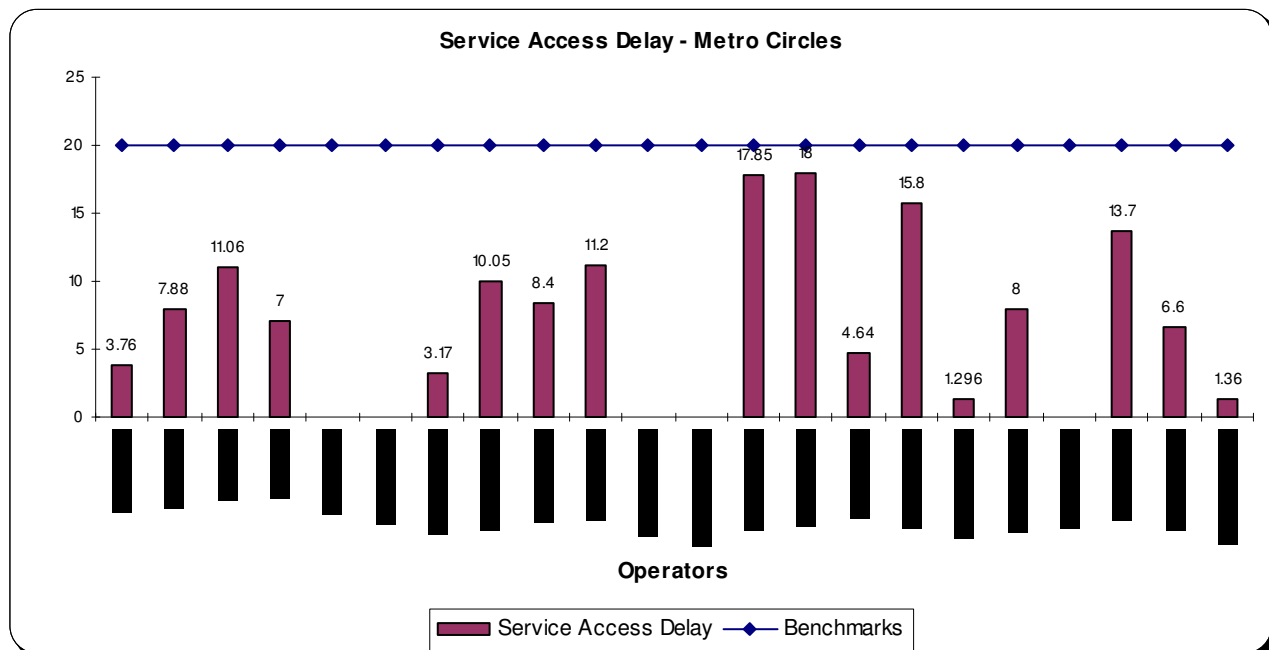
4.1.1 METRO CIRCLES



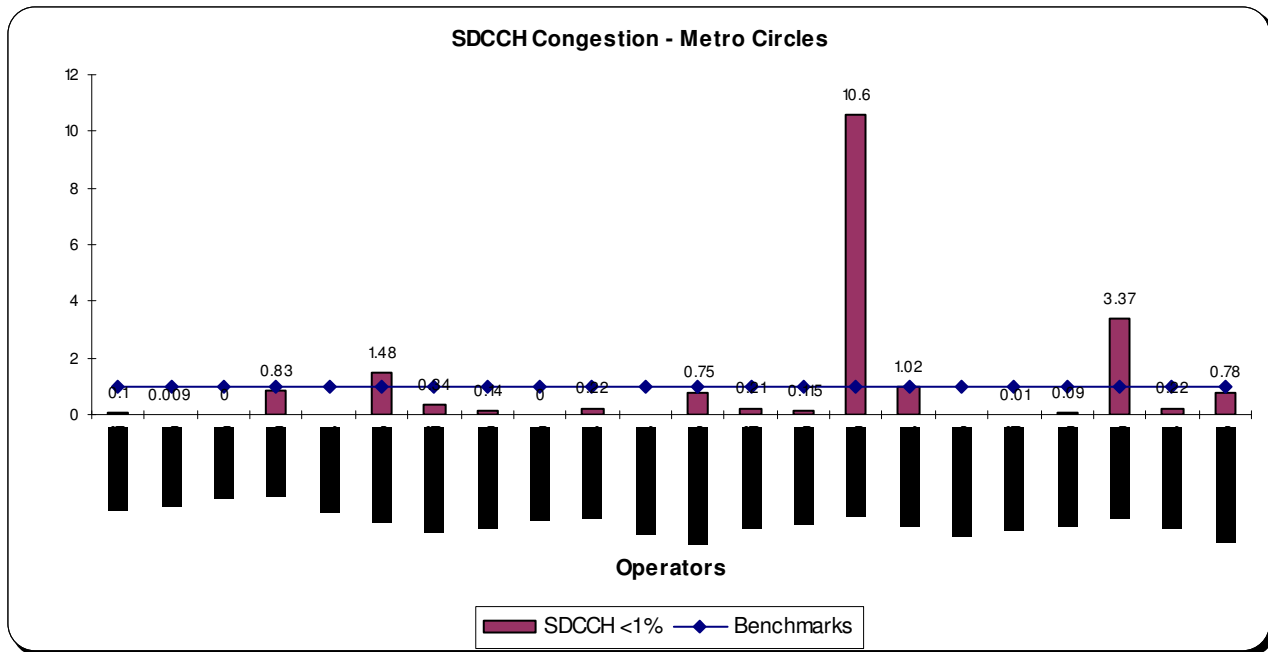
Audit was conducted for 21 operators. One operator namely MTNL Delhi was not done. 2 operators are not meeting the benchmark parameter.



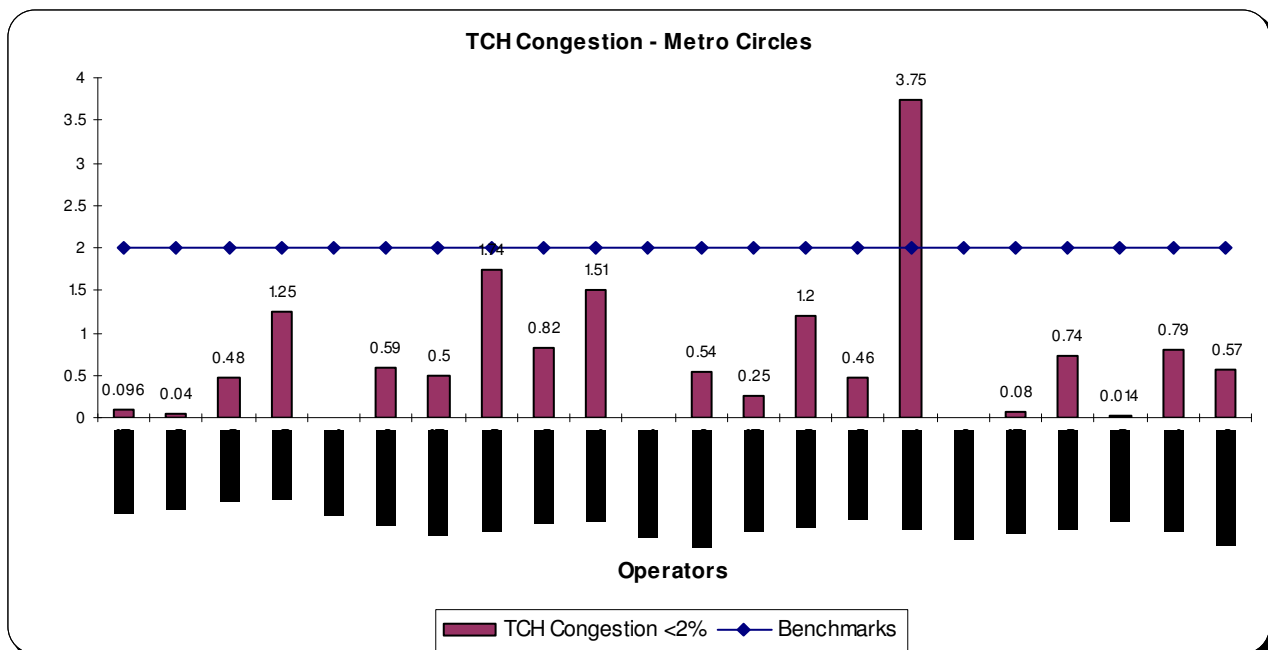
Audit was conducted for 21 operators. One operator namely MTNL Delhi was not done. 1 operator is not meeting the benchmark parameter.



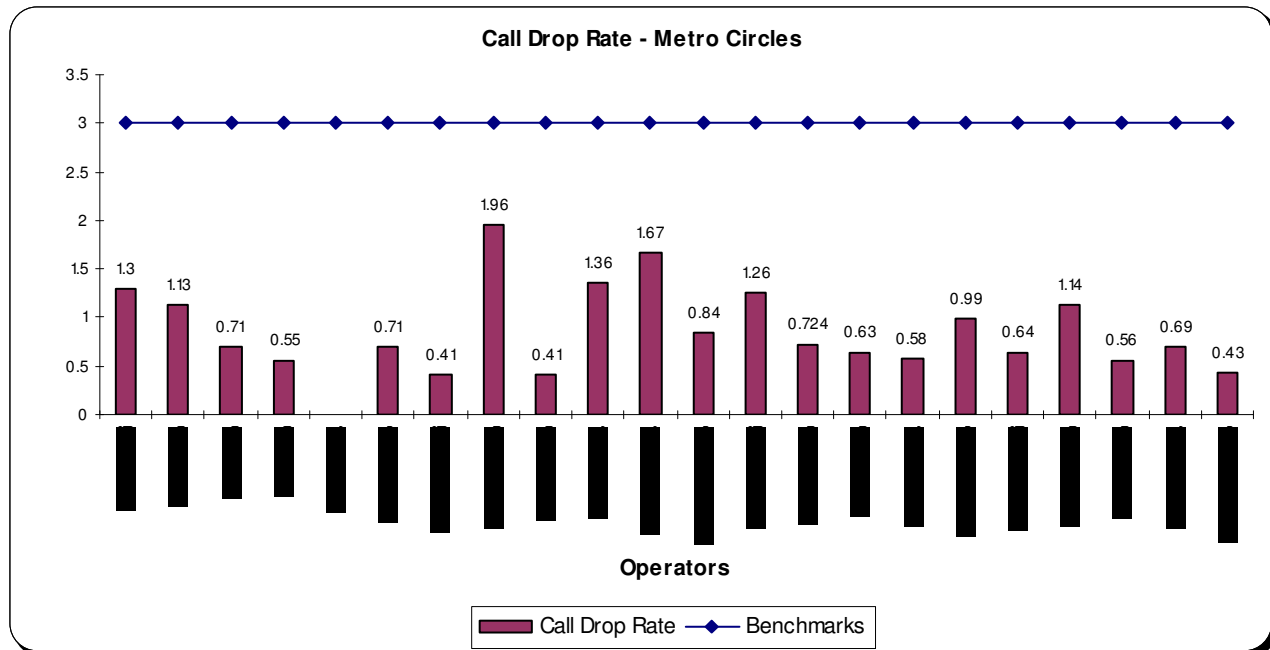
Audit was conducted for 21 operators. One operator namely MTNL Delhi was not done. 17 operators are meeting the benchmark parameter Data Not Provided by MTNL Mumbai, Rel Info Mumbai, Rel Info Delhi and Hutch Chennai



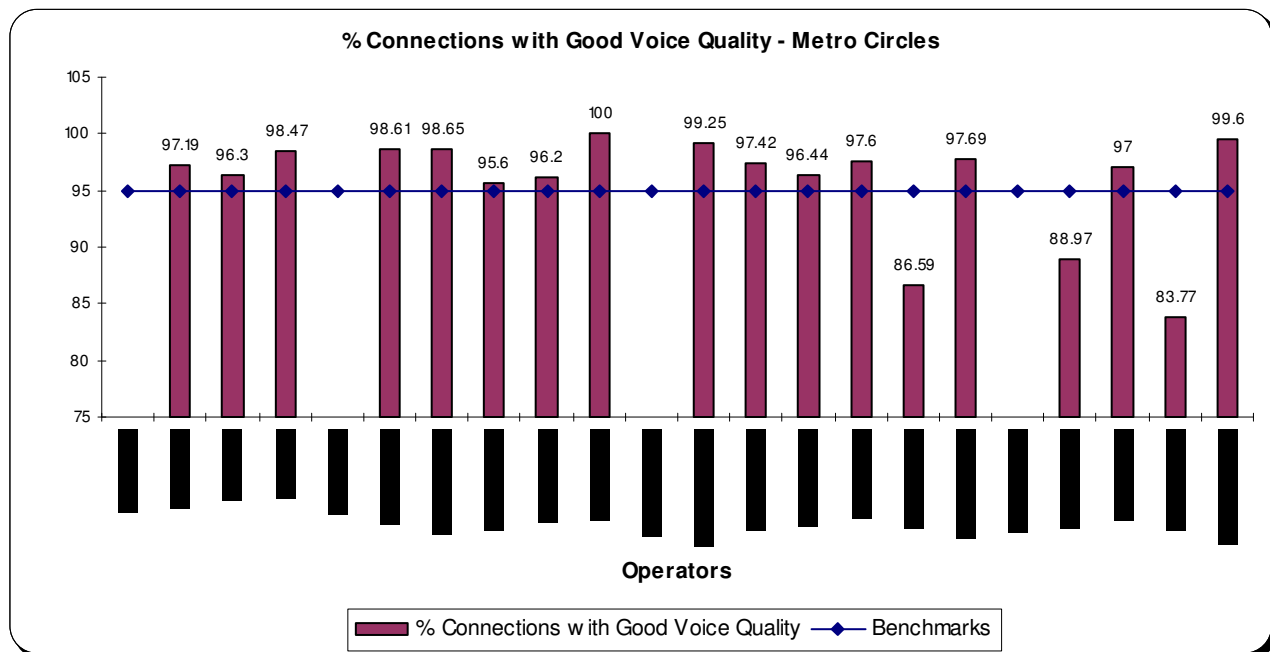
Audit was conducted for 20 operators. 2 operators namely MTNL Delhi and Rel Info Kolkata were not done. 4 operators are not meeting the benchmark parameter Record not available for MTNL Mumbai



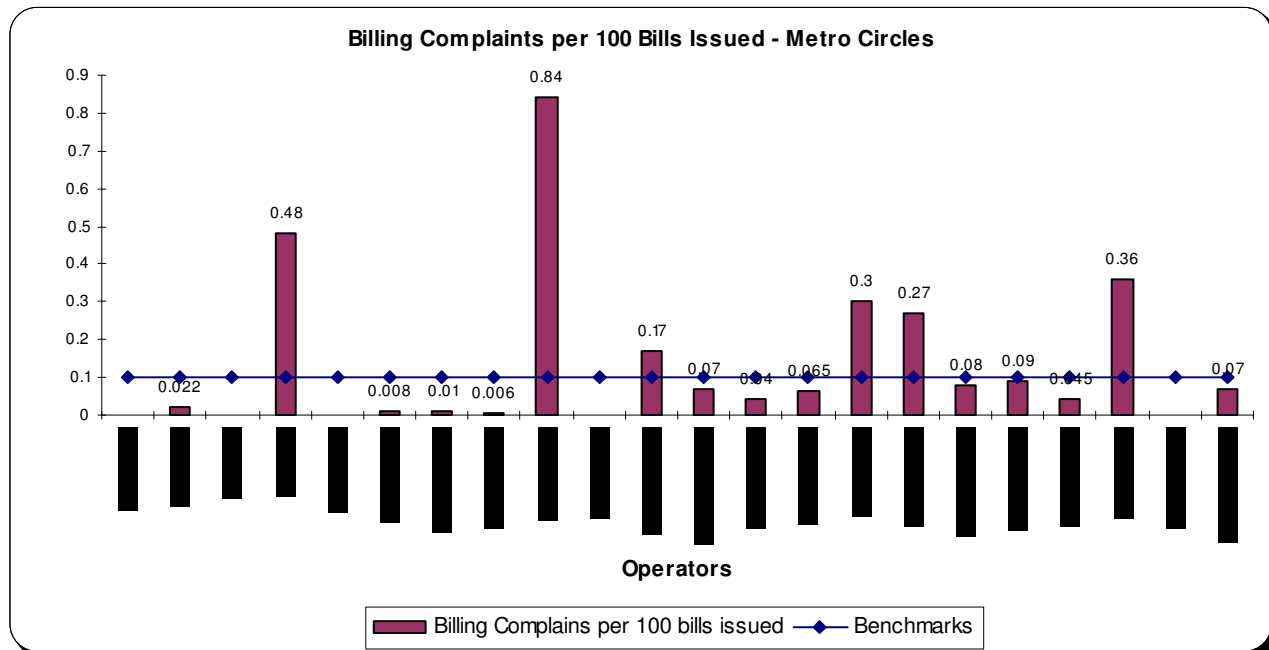
Audit was conducted for 20 operators. 2 Operators namely MTNL Delhi and Rel Info Kolkata were not done. One operator is not meeting the benchmark parameter Record not available for MTNL Mumbai



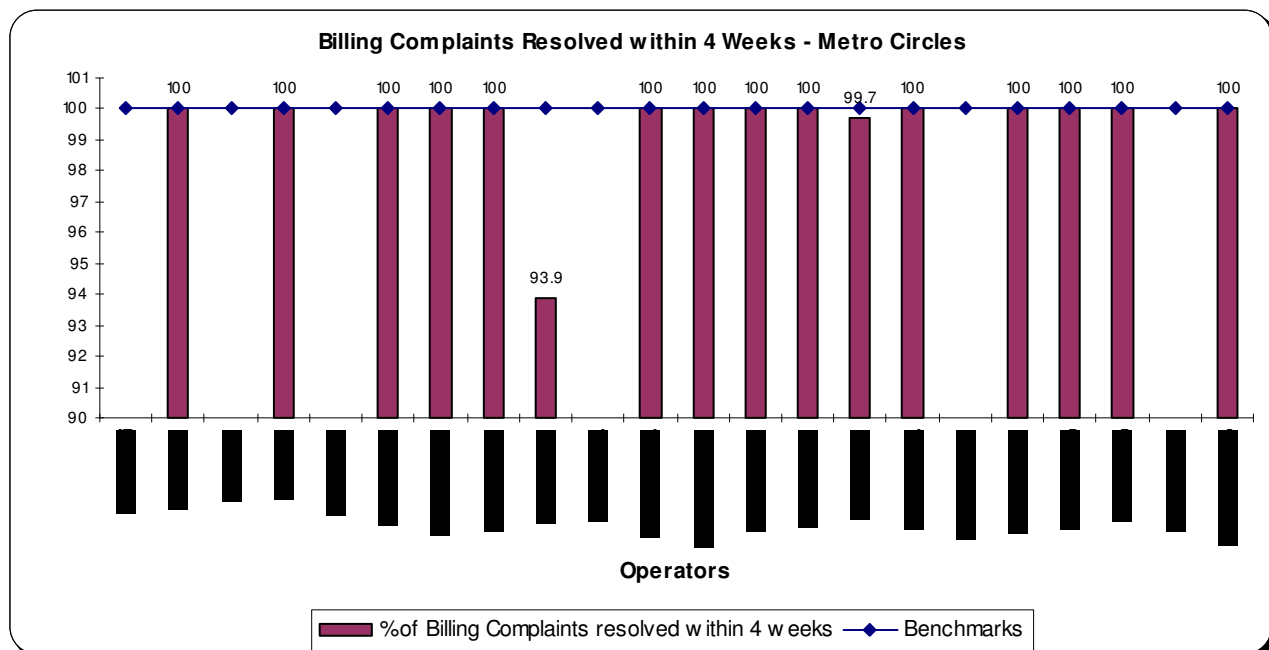
Audit was conducted for 21 operators. One operator namely MTNL Delhi was not done All the operators are meeting the benchmark parameter.



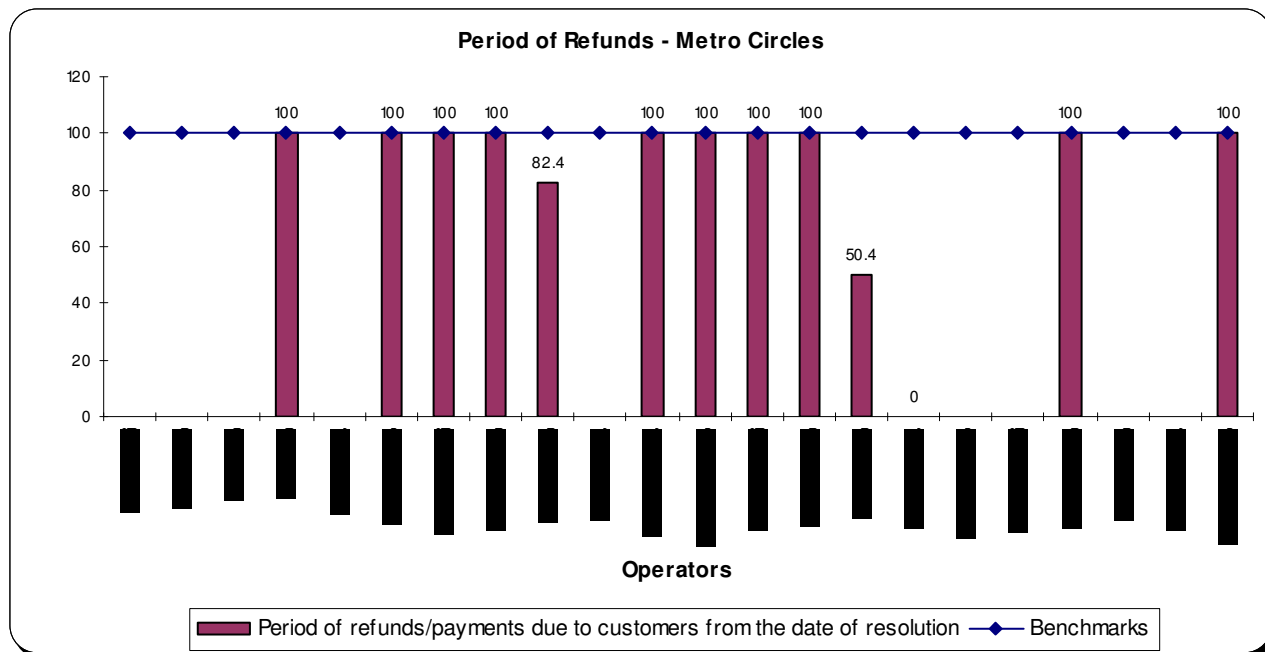
Audit was conducted for 20 operators. Two operators namely MTNL & Bharti, Delhi were not done. Three operators are not meeting the benchmark parameter. Record not available for MTNL Mumbai. Data Not provided by Bharti Chennai



Audit was conducted for 17 operators. 5 operators were not done. 6 operators are not meeting the benchmark parameter.

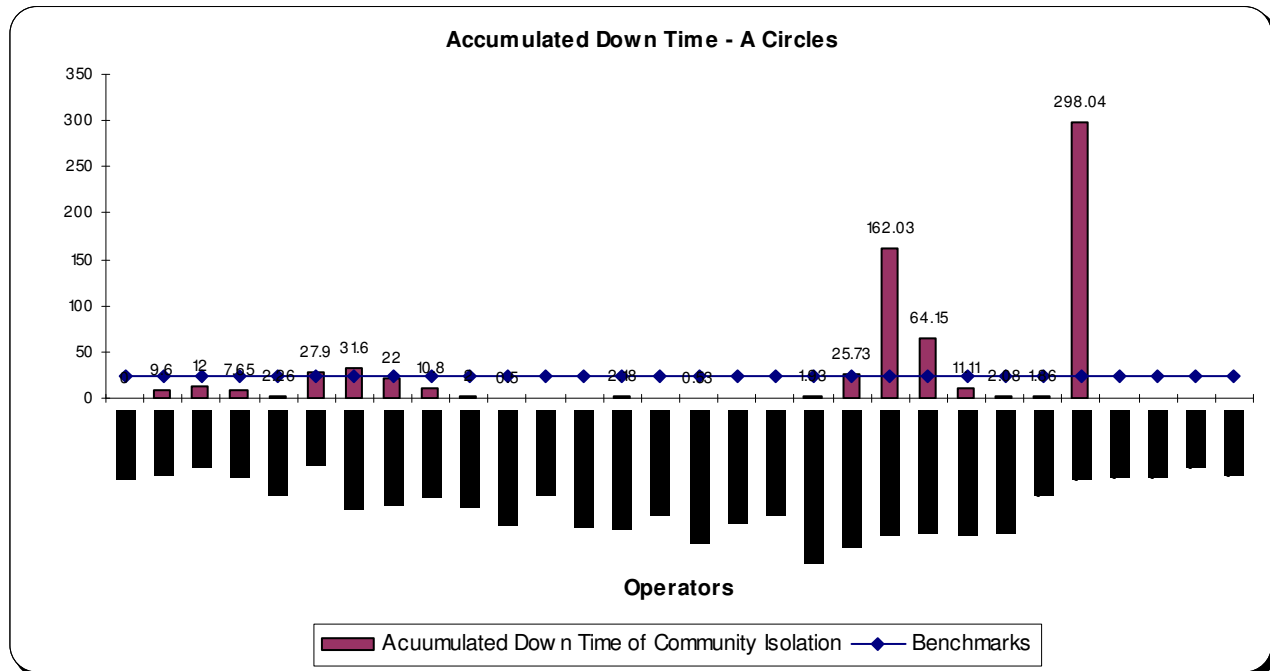


Audit was conducted for 16 operators. Two operators are not meeting the benchmark parameter. Rest 6 operators were not done.

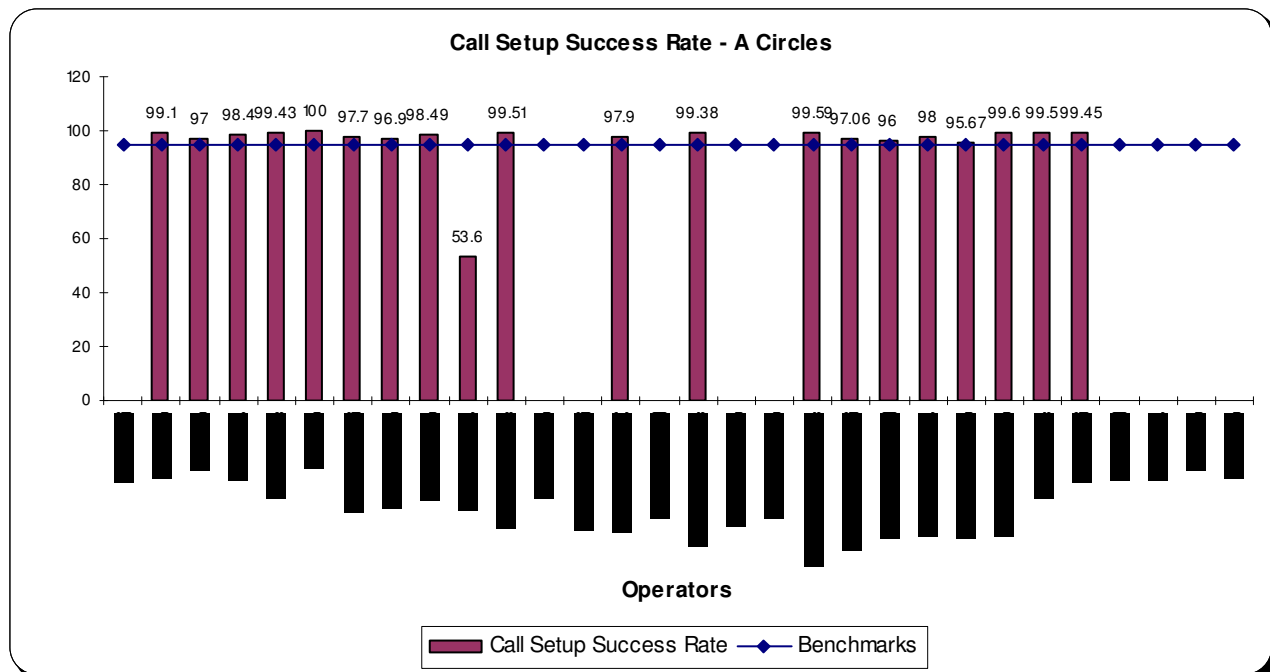


Audit was conducted for 16 operators. 3 operators are not meeting the benchmark parameter. Data Not Provided by Hutch Delhi, Bharti Chennai and Tata Chennai. Rest 6 operators not done.

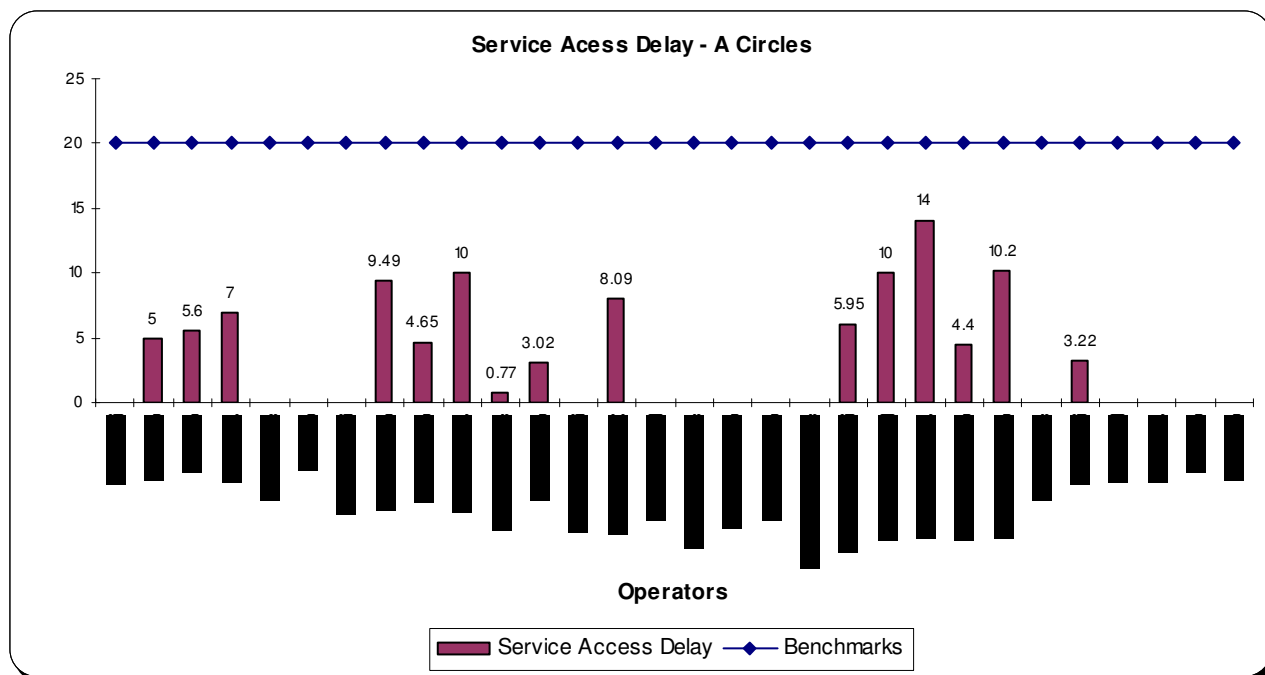
4.1.2 A CIRCLES



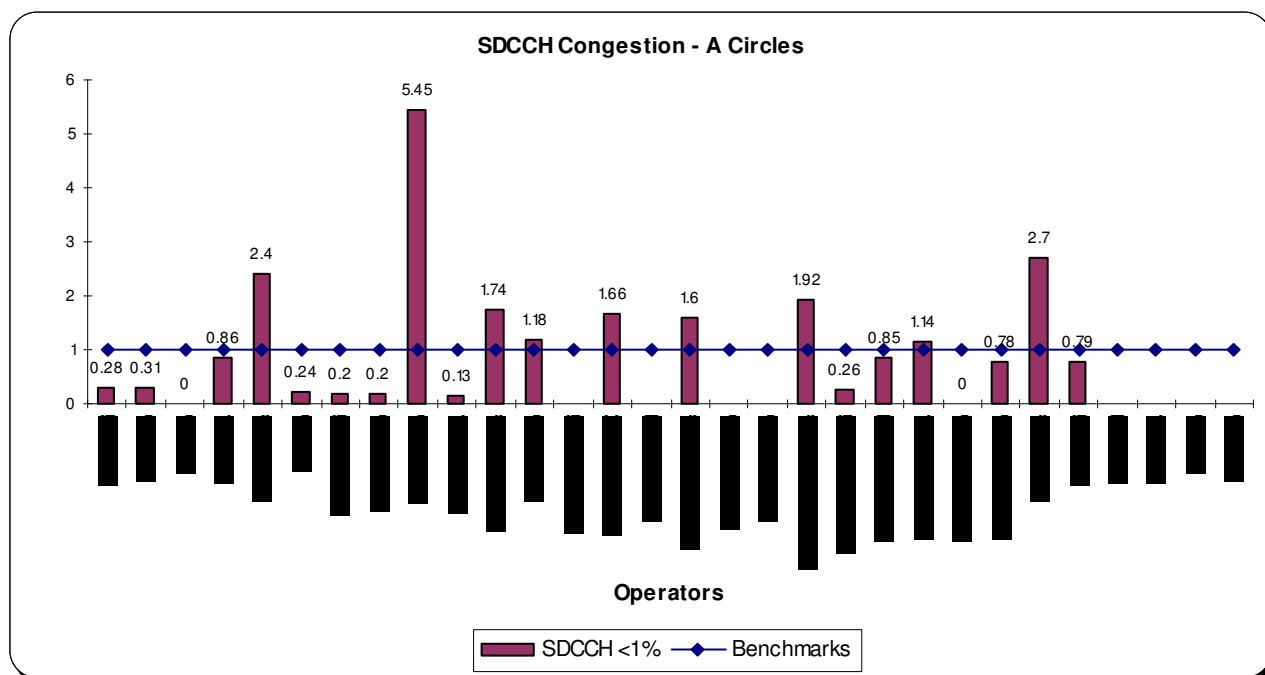
Audit was conducted for 22 operators. Rest 8 operators were not done. Data Not provided by Idea Gujarat. 6 operators are not meeting the parameter.



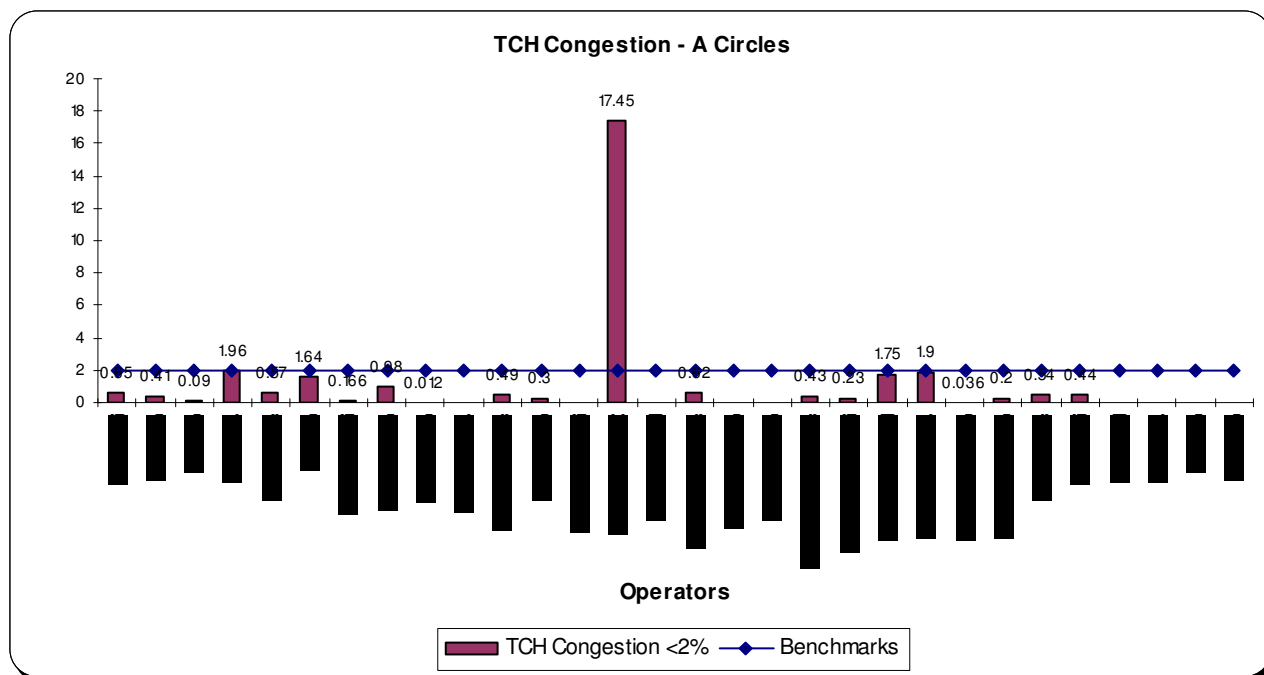
Audit was conducted for 22 operators. Rest 8 operators were not done. Data not provided by Idea Gujarat and Bharti AP. Only 1 operator is not meeting the parameter.



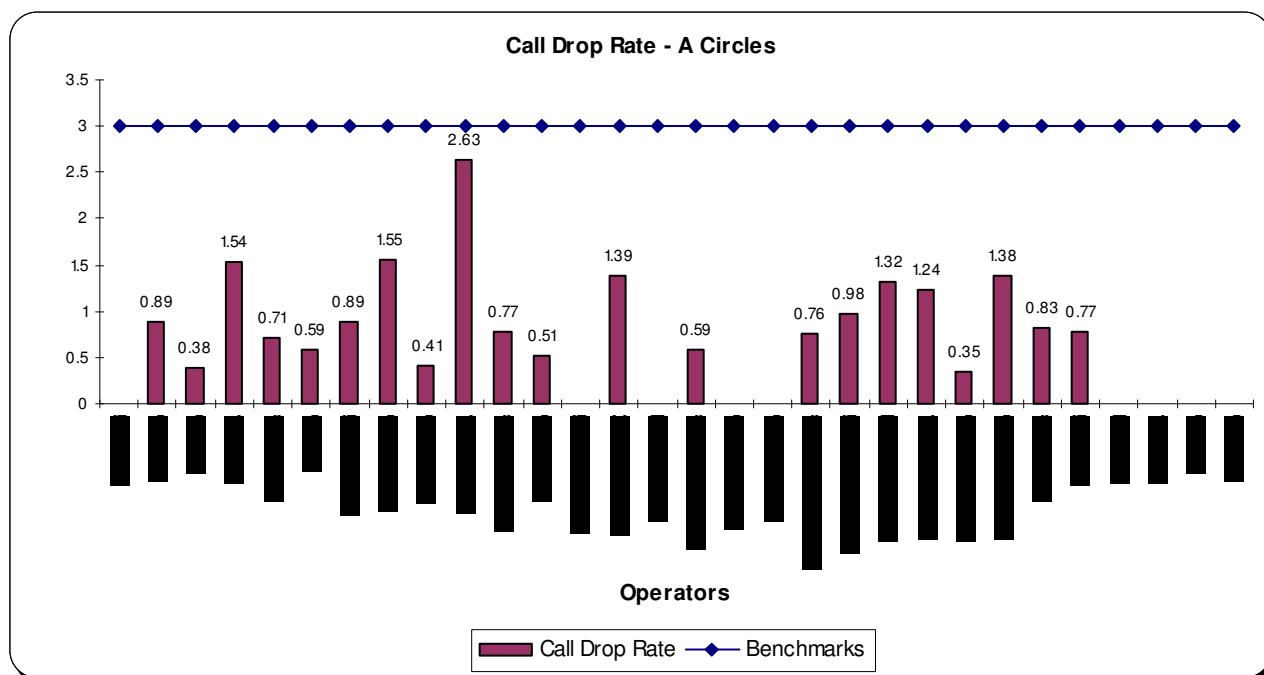
Audit was conducted for 20 operators. Rest 10 operators were not done. 15 operators are meeting the parameter. Data Not provided by AP Bharti, Idea and Rel Info, Gujarat Bharti and Karnataka Rel Info.



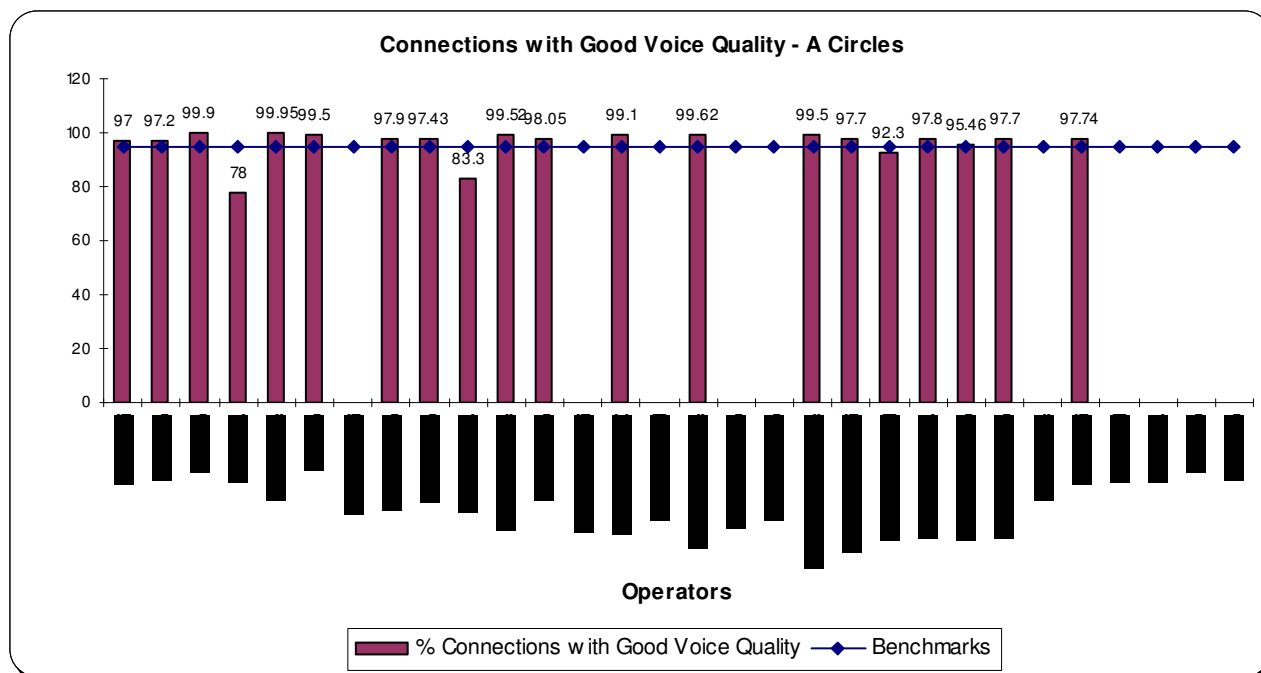
Audit was conducted for 22 operators. Rest 8 operators were not done. 9 operators are not meeting the benchmark parameter.



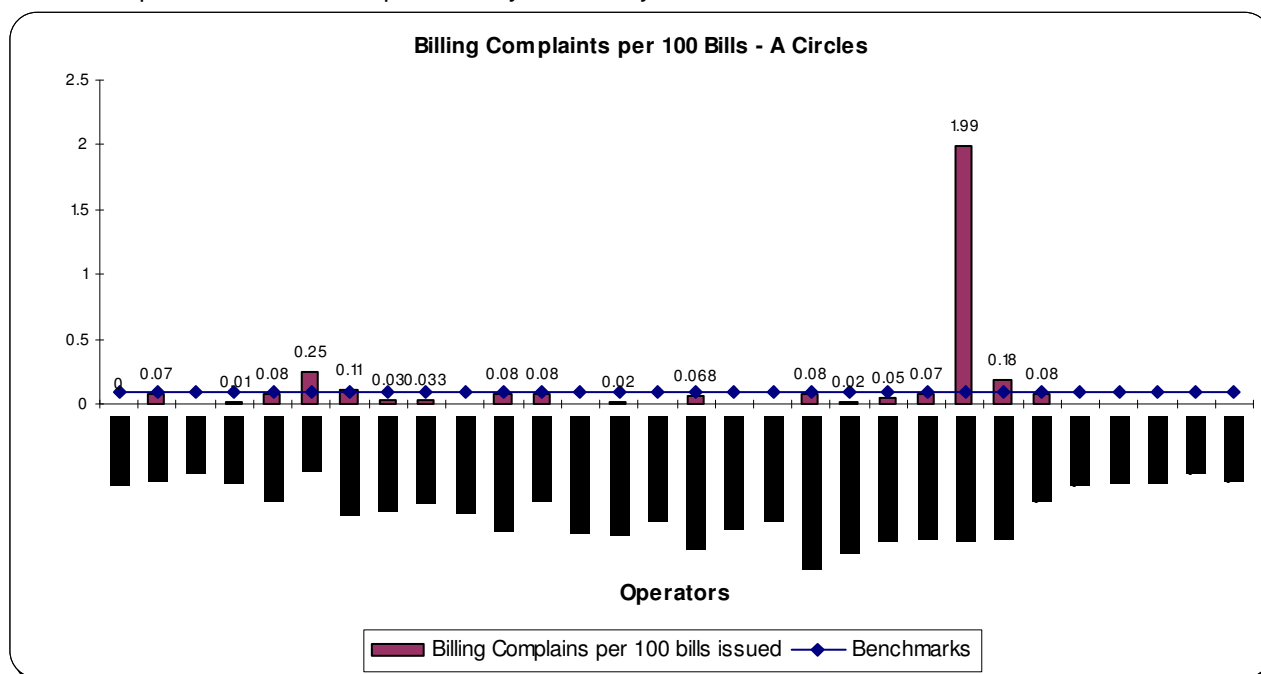
Audit was conducted for 22 operators. Rest 8 operators were not done. One operator is not meeting the benchmark parameter. Data not provided by BSNL Gujarat.



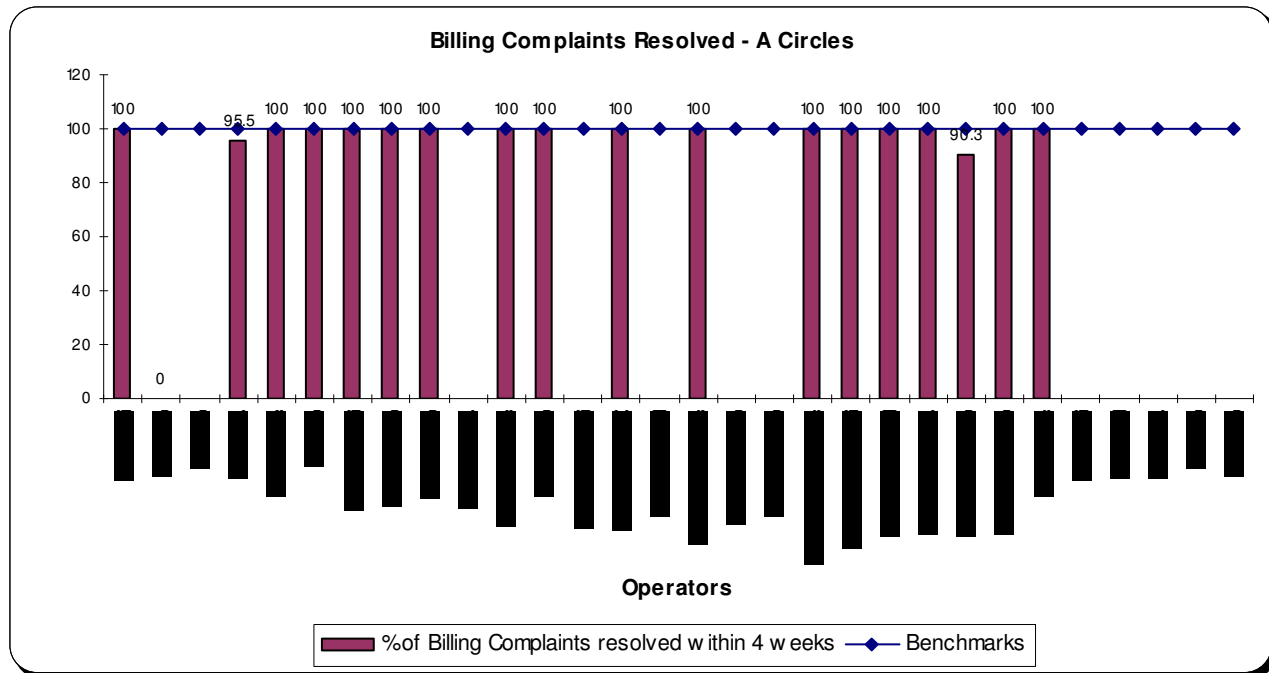
Audit was conducted for 22 operators. Rest 8 operators were not done. 21 operators are meeting the Bench Mark Parameters. Data not provided by AP Bharti.



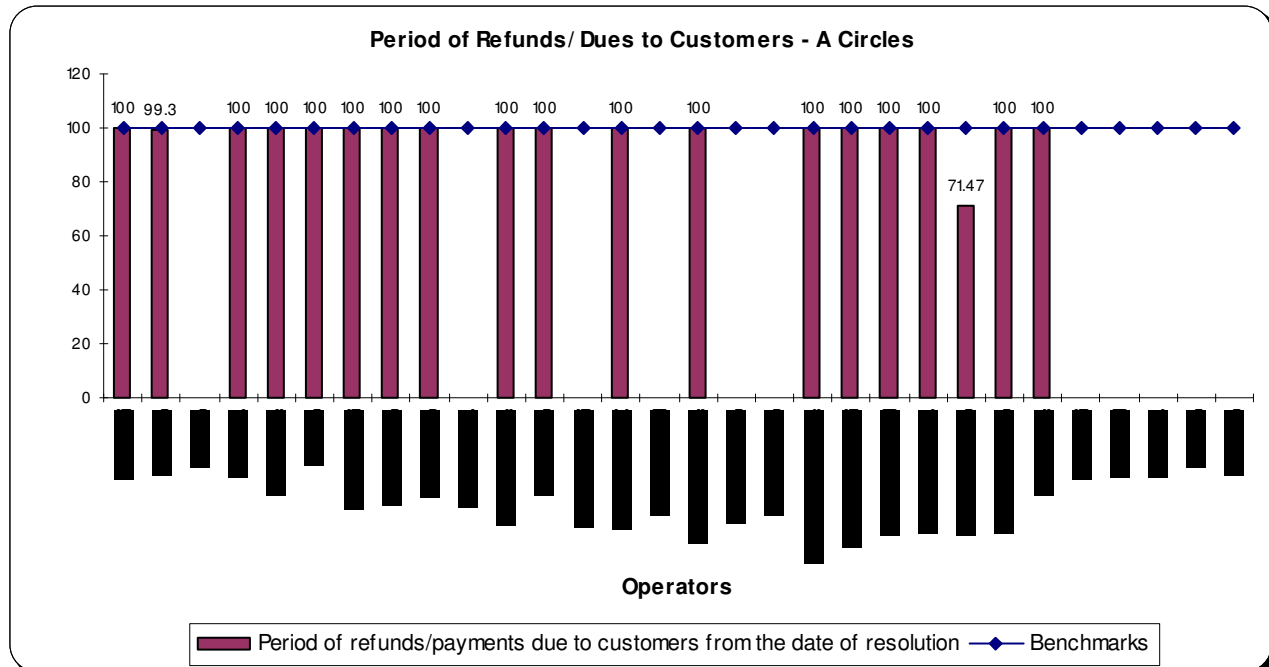
Audit was conducted for 21 operators. Rest 9 operators were not done. 3 operators are not meeting the benchmark parameter. Data not provided by Bharti Gujarat.



Audit was conducted for 19 operators. Rest 11 operators were not done. 4 operators are not meeting the benchmark parameter.

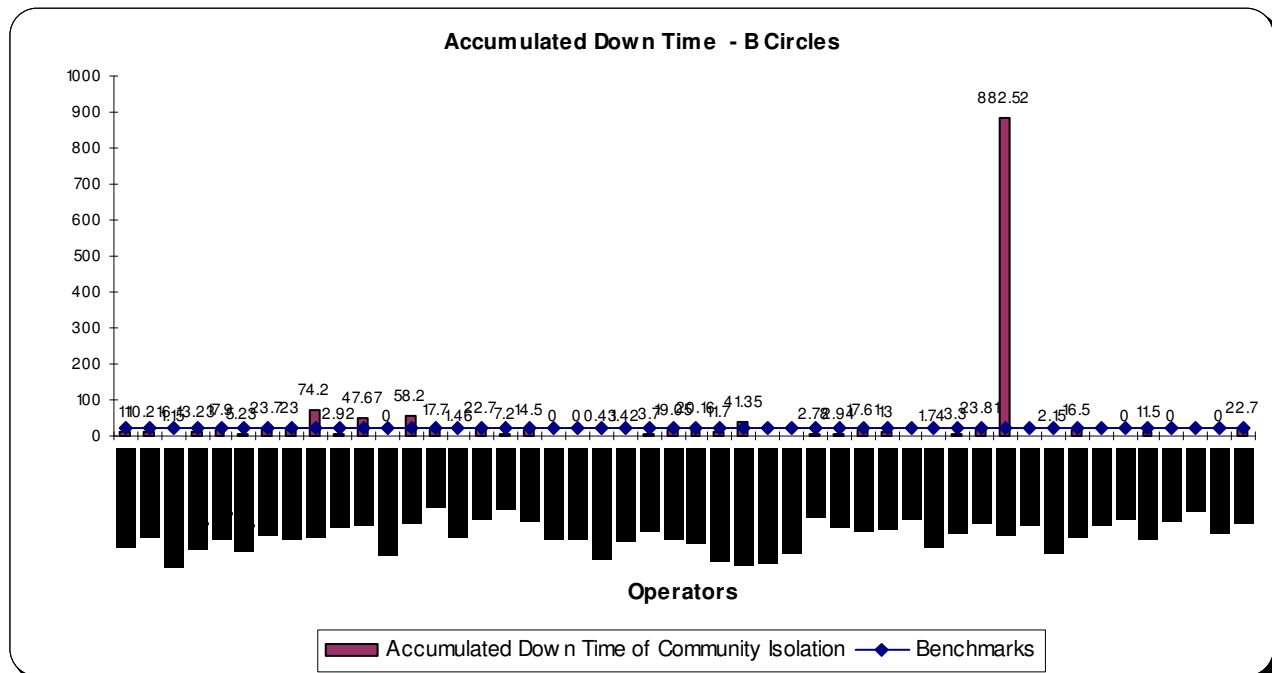


Audit was conducted for 19 operators. Rest 11 operators were not done. Two operators are not meeting the benchmark parameter. Data not provided by Hutch AP.

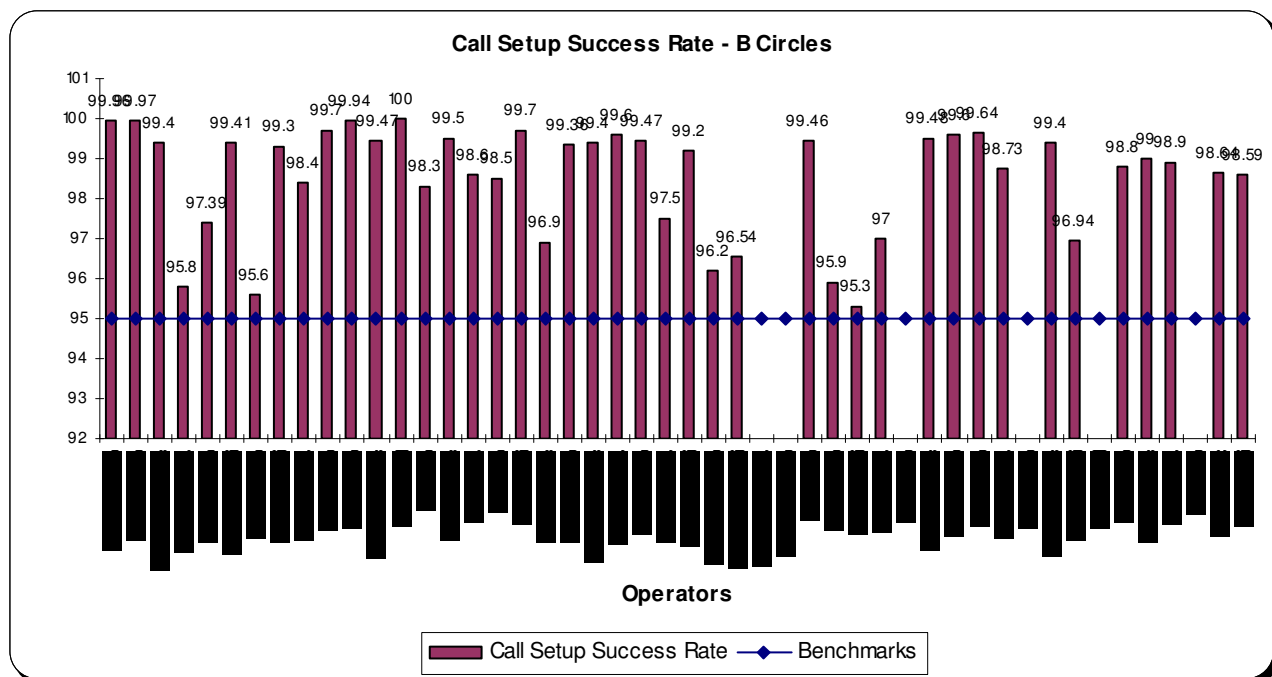


Audit was conducted for 19 operators. Rest 11 operators were not done. Two operators are not meeting the benchmark parameter.

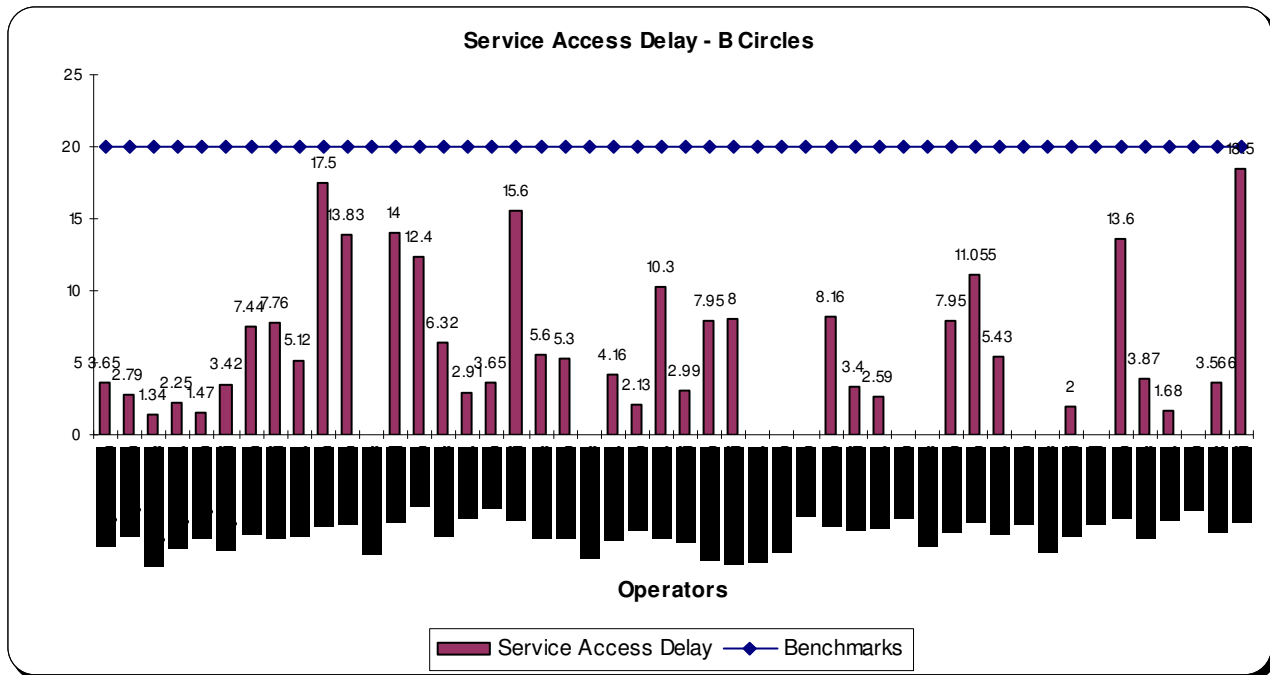
4.1.3 B CIRCLES



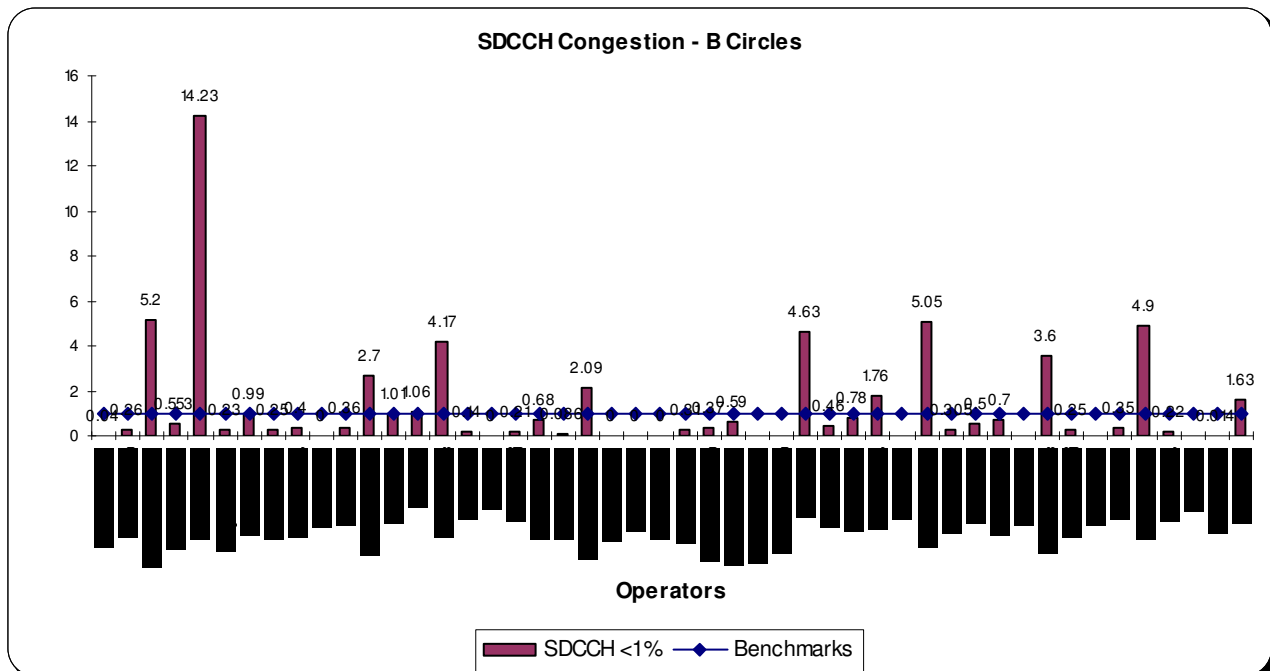
Audit was conducted for 42 operators. 5 operators are not meeting the benchmark parameter. Rest 6 operators were not done.



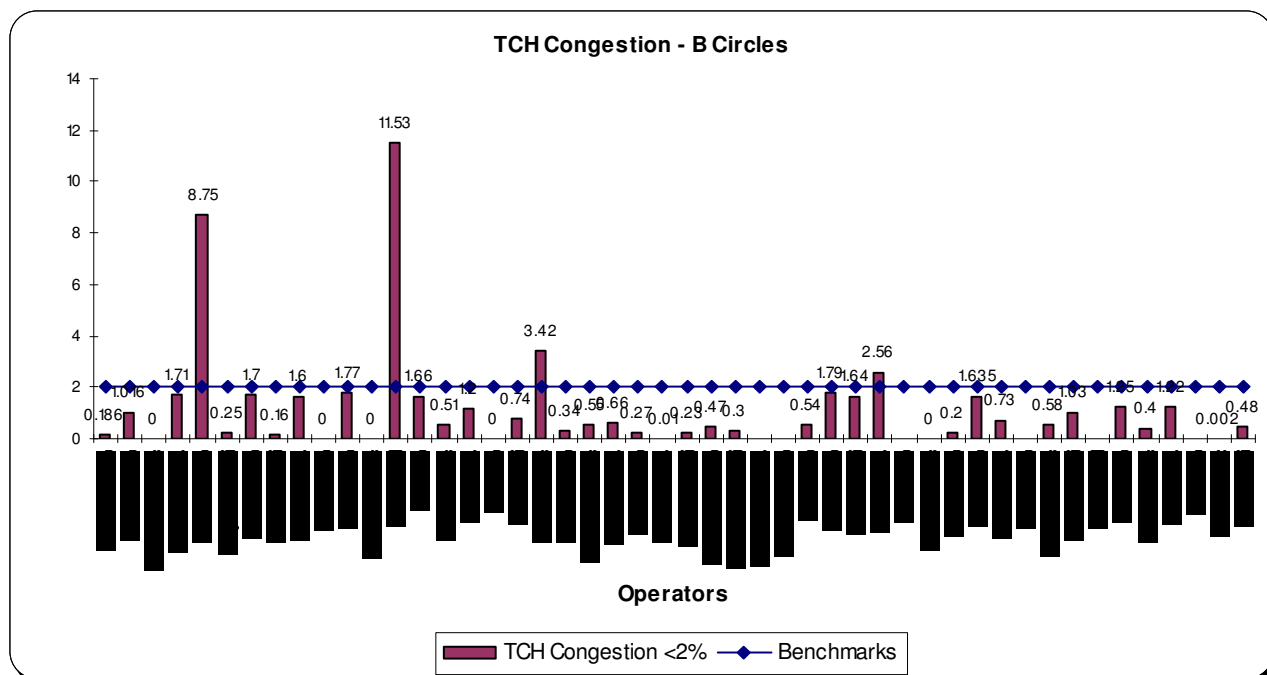
Audit was conducted for 42 operators. Rest 6 operators were not done. All Operators are meeting the Bench Mark Parameters.



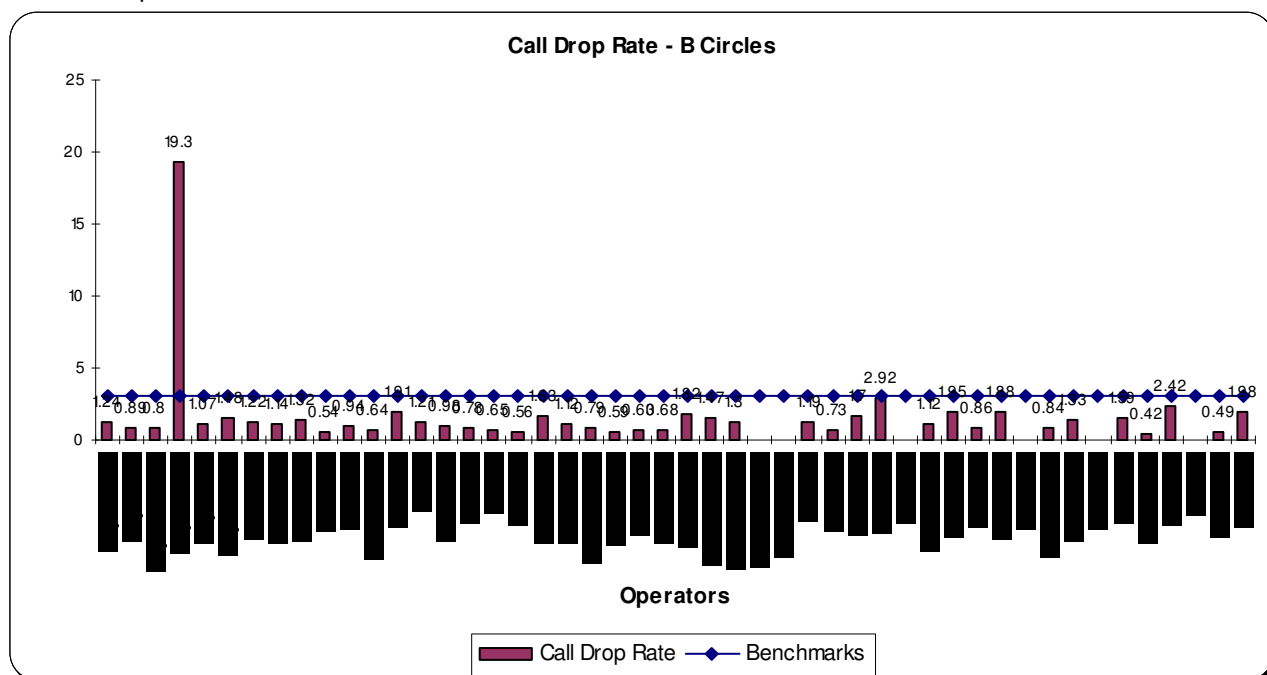
Audit was conducted for 41 operators. Rest 7 operators were not done. All Operators are meeting the Bench Mark Parameters. Data not provided by UP E Reliance, Punjab Reliance, Kerala Reliance and UP W Reliance.



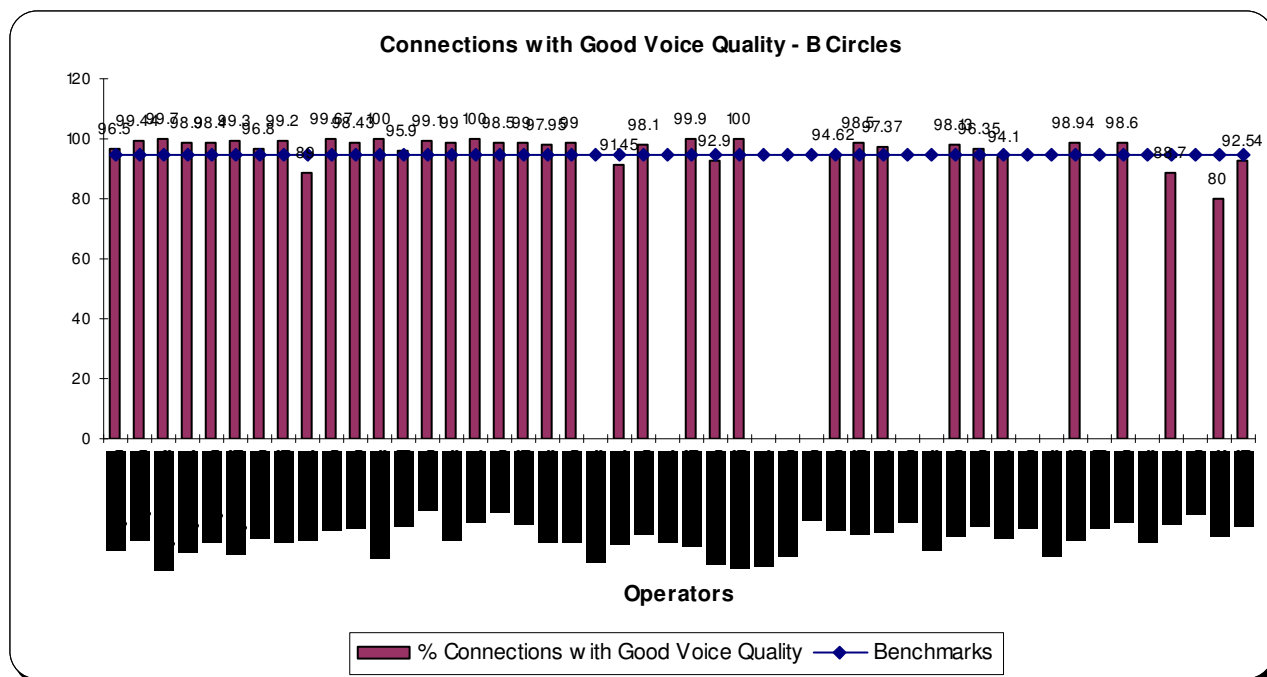
Audit was conducted for 42 operators. Rest 6 Operators were not done. 13 operators are not meeting the benchmark parameter.



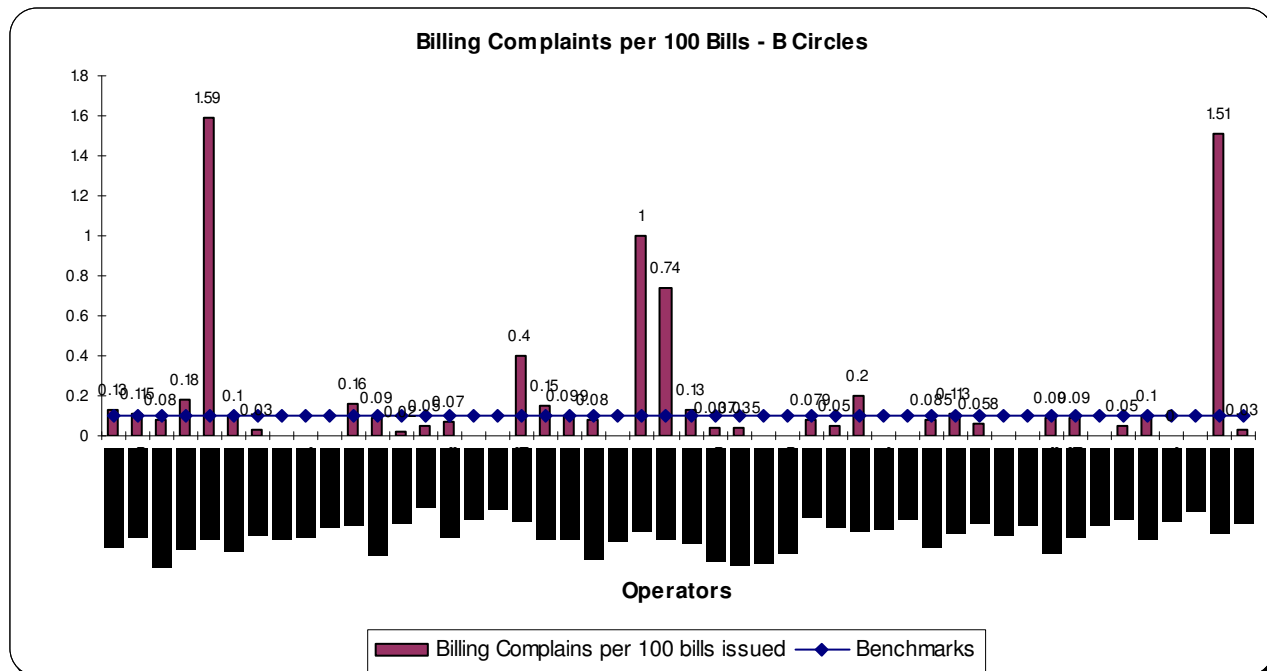
Audit was conducted for 42 operators. Rest 6 operators were not done. 4 operators are not meeting the benchmark parameter.



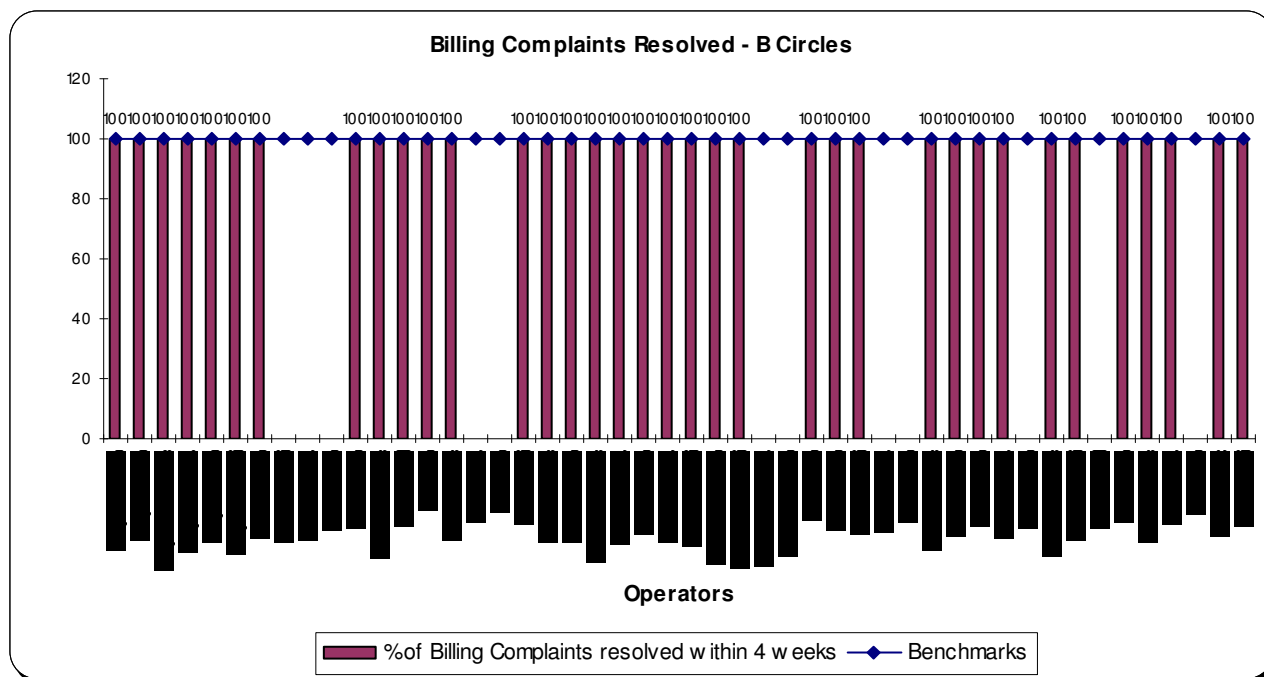
Audit was conducted for 42 operators. Rest 6 operators were not done. One operator is not meeting the benchmark parameter.



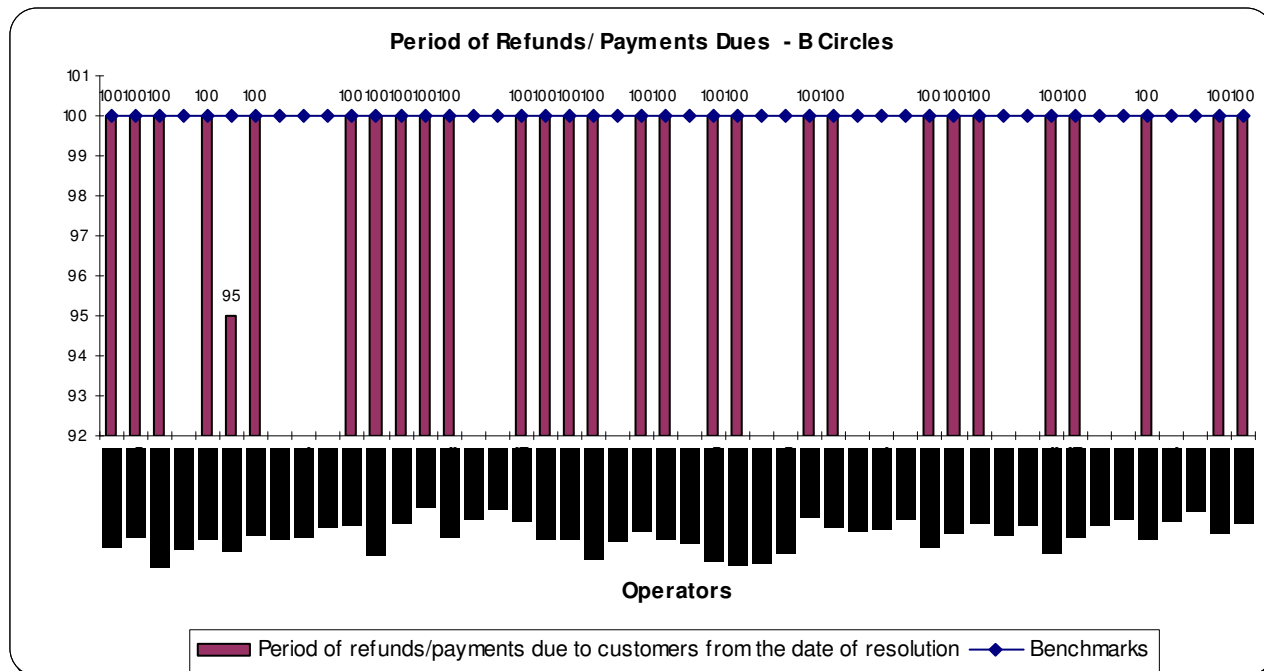
Audit was conducted for 38 operators. Rest 10 operators were not done. 8 operators are not meeting the benchmark. Data Not Provided by HFCL and Reliance Punjab.



Audit was conducted for 38 operators. Rest 10 operators were not done. 4 operators namely BSNL - Punjab, BSNL – Rajasthan, BSNL - UP E BSNL - UP W not provided the data. 13 operators are not meeting the benchmark parameter.

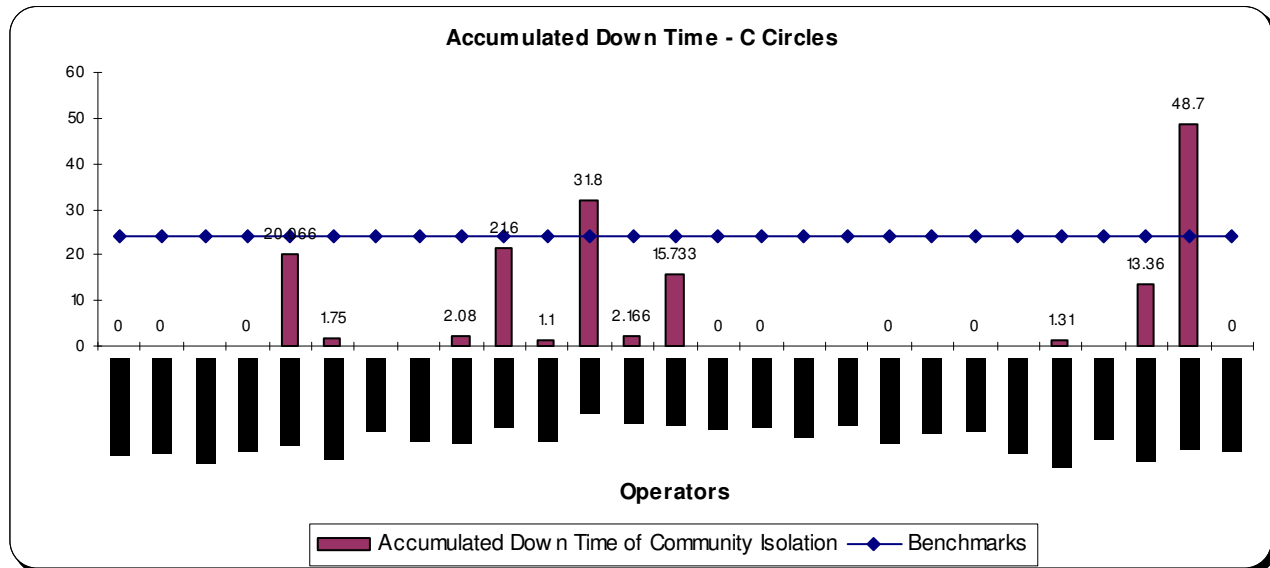


Audit was conducted for 36 operators. All operators are meeting the benchmark parameter. Rest 12 operators were not done.

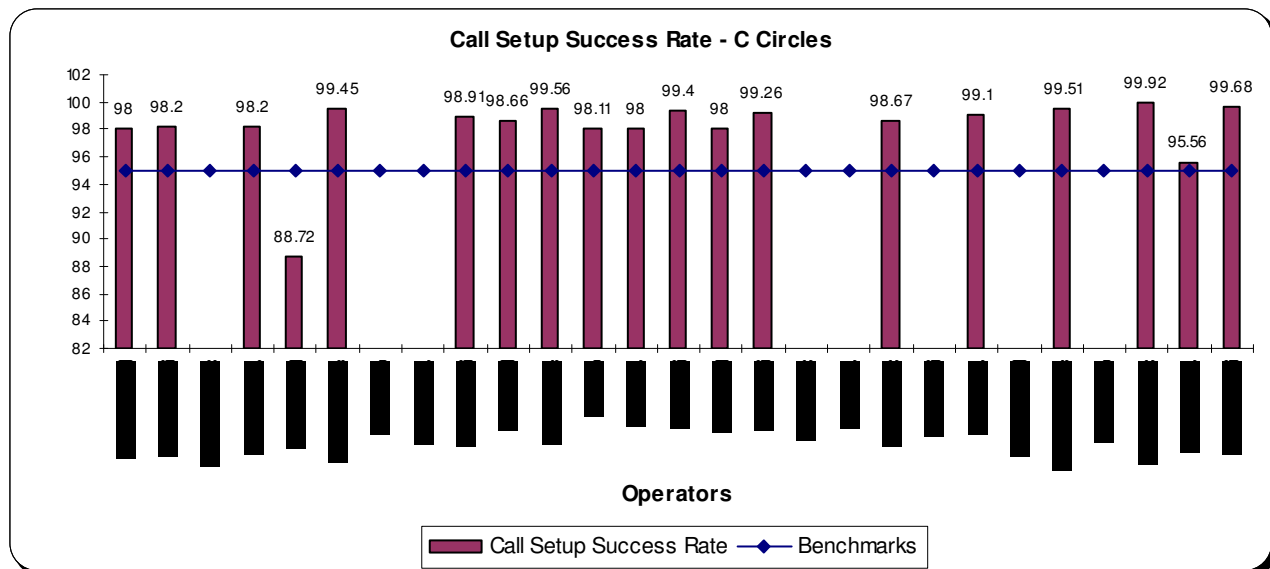


Audit was conducted for 37 operators. Rest 11 operators were not done. One operator is not meeting the benchmark parameter. Data not provided by Rajasthan BSNL, UP E BSNL and UP W BSNL. No incidences were observed in case of BSNL – Haryana, BSNL – Punjab, Bharti – Punjab, Hutch – West Bengal and BSNL – West Bengal.

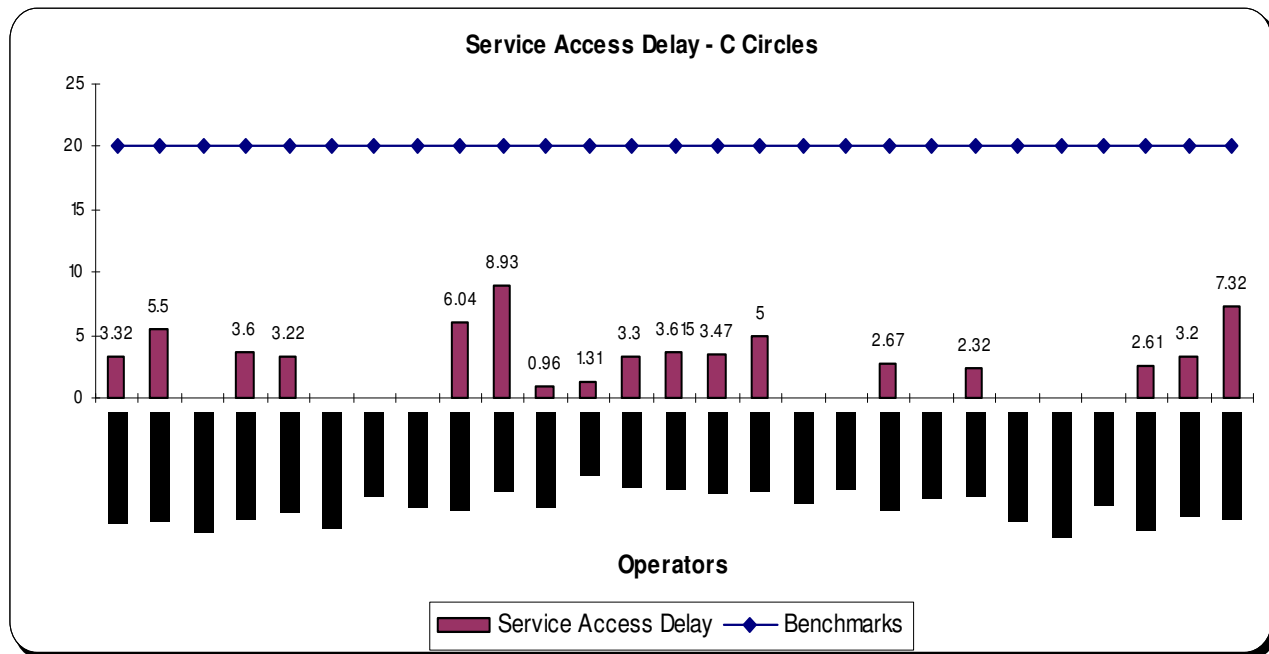
4.1.4 C CIRCLES



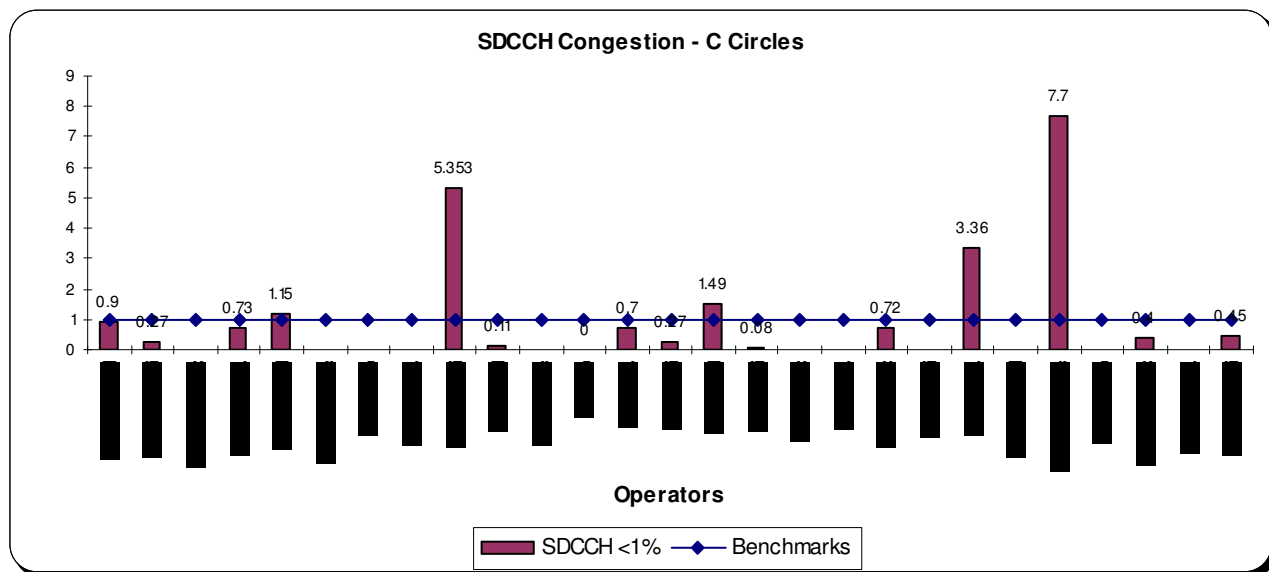
Audit was conducted for 19 operators. Two operators are not meeting the benchmark parameter. Rest 8 operators were not done.



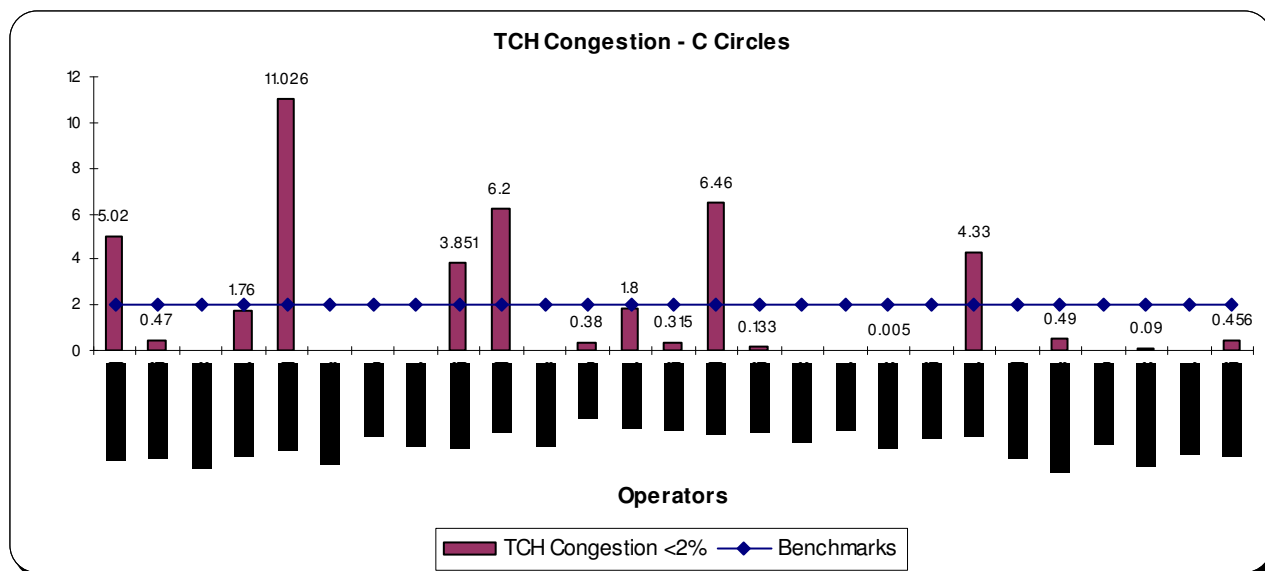
Audit was conducted for 19 operators. Rest 8 operators were not done. One operator is not meeting the benchmark parameter.



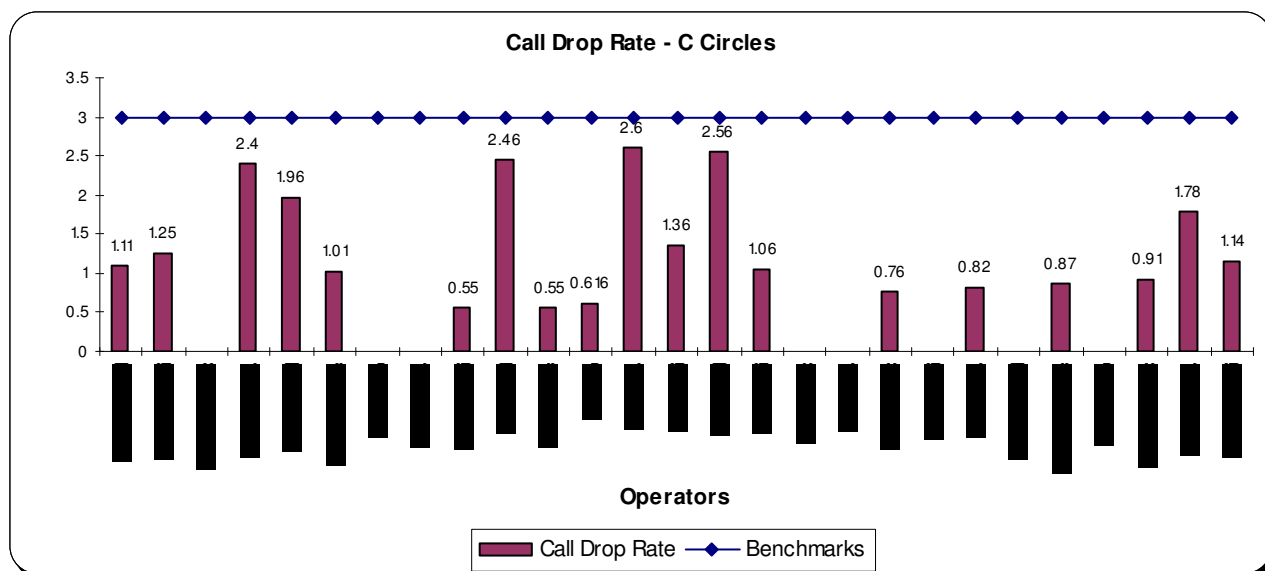
Audit was conducted for 18 operators. Rest 9 operators were not done. 17 Operators are meeting the Bench Mark Parameters. Data not provided by Reliance Info Bihar.



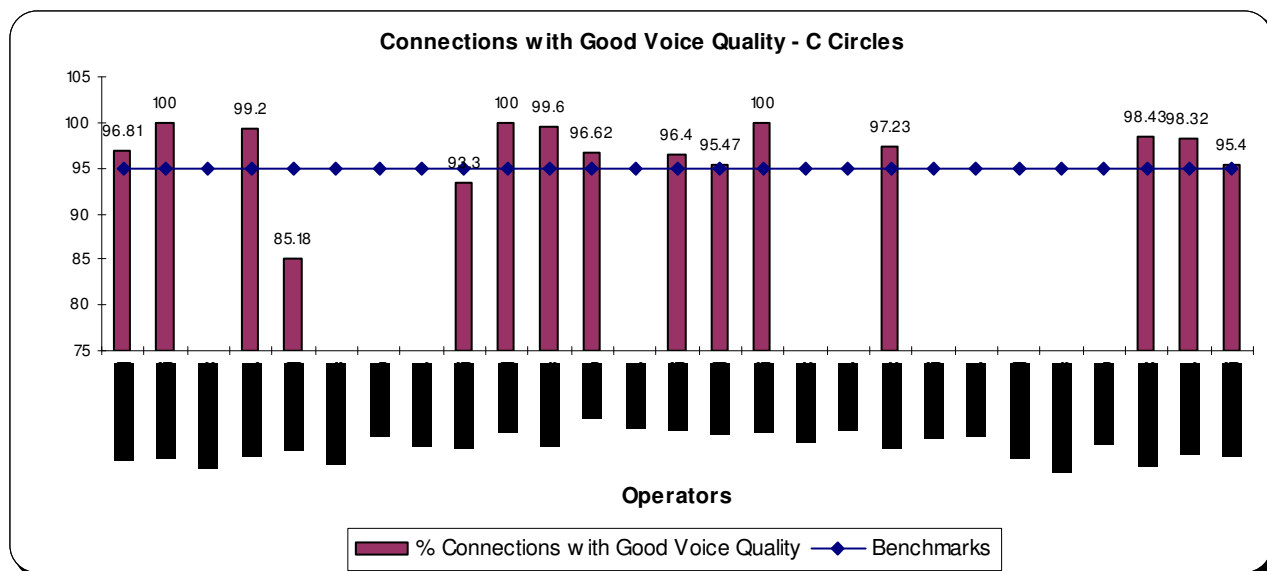
Audit was conducted for 19 operators. Rest 8 operators were not done. 5 operators are not meeting the benchmark parameter. Data not provided by Reliance Bihar, Reliance HP and BSNL Orissa.



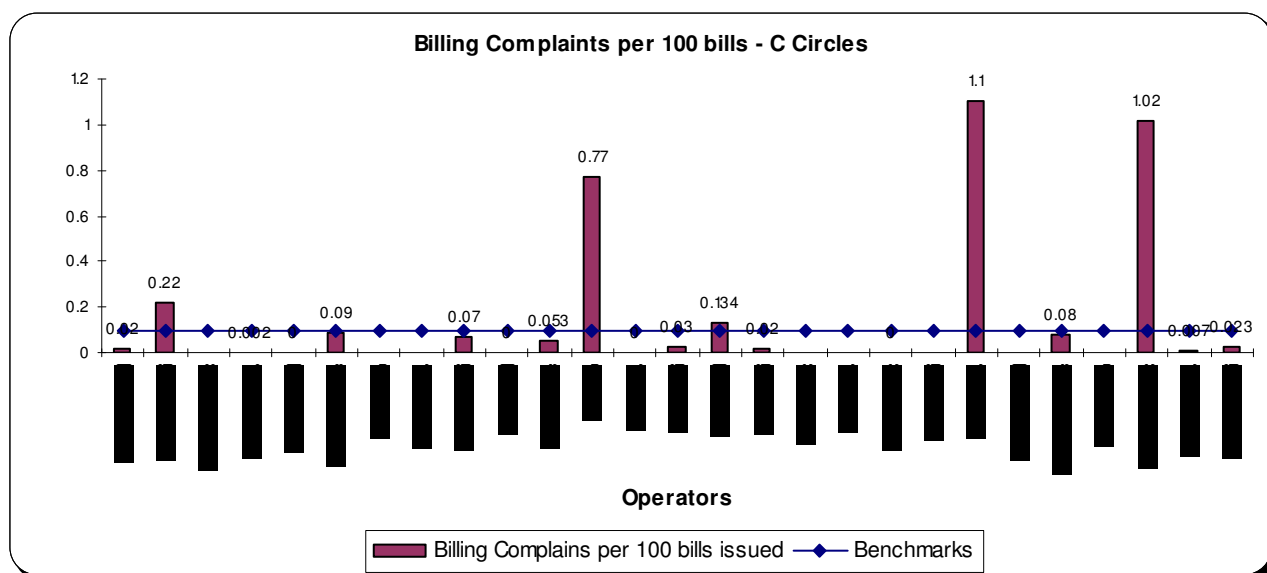
Audit was conducted for 19 operators. Rest 8 operators were not done. Six operators are not meeting the benchmark parameter. Data not provided by Bihar Reliance, HP Reliance and Orissa BSNL.



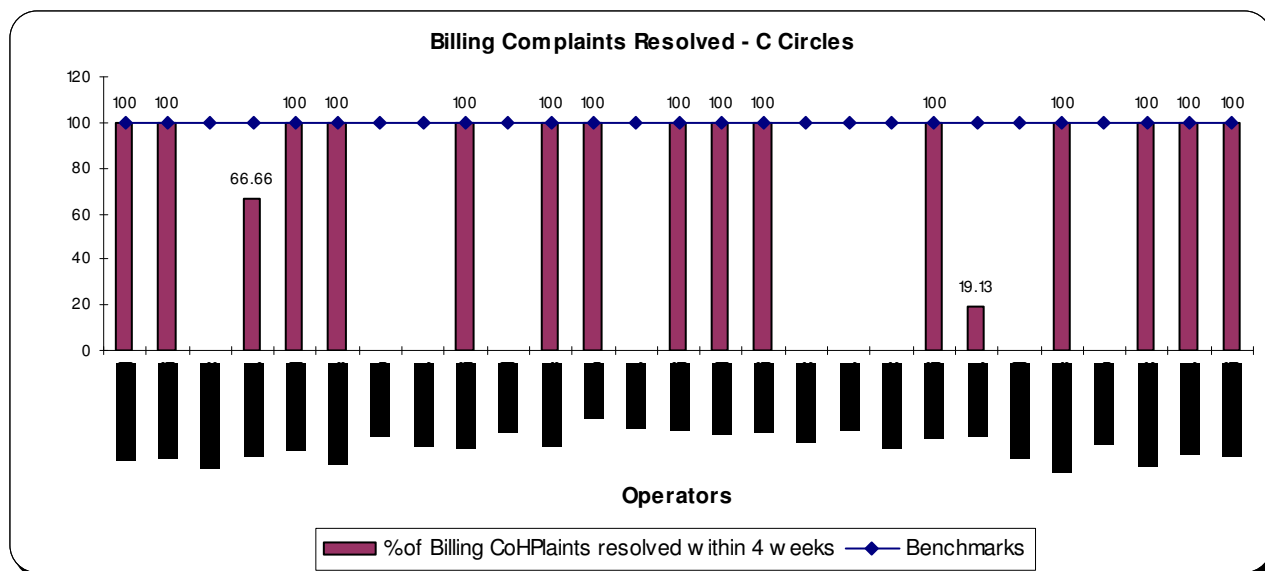
Audit was conducted for 19 operators. Rest 8 operators were not done. All Operators are meeting the Bench Mark Parameters.



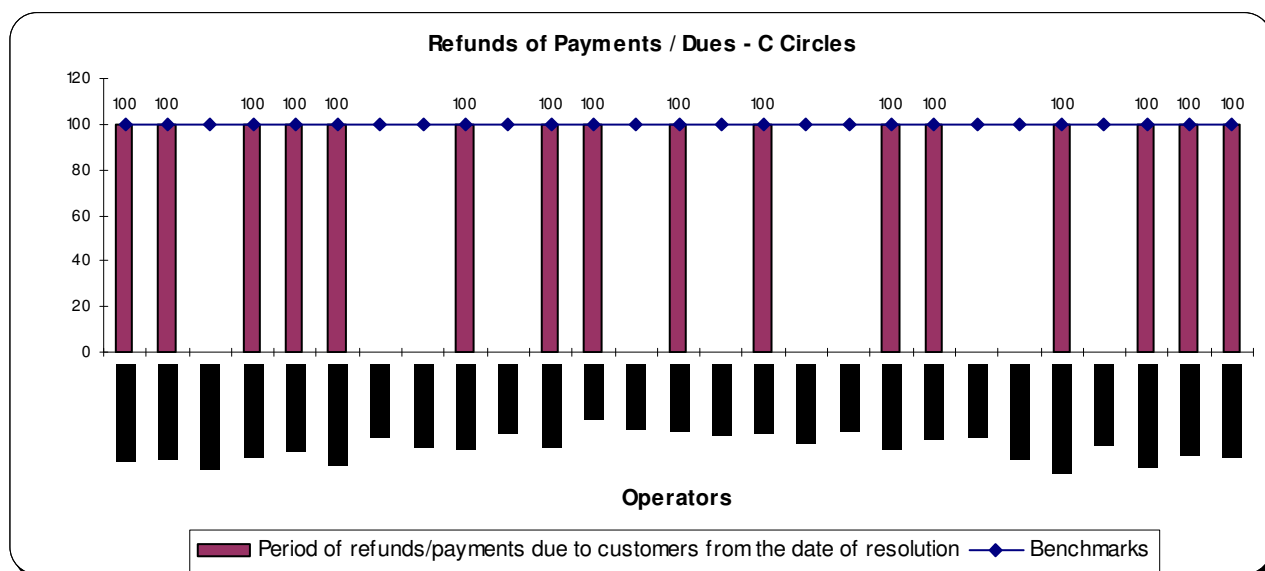
Audit was conducted for 18 operators. Rest 9 operators were not done. Two operators are not meeting the benchmark parameter. Data not provided by Bihar Reliance, HP BSNL & J&K BSNL.



Audit was conducted for 19 operators. Rest 8 operators were not done. 5 operators are not meeting the benchmark parameter.



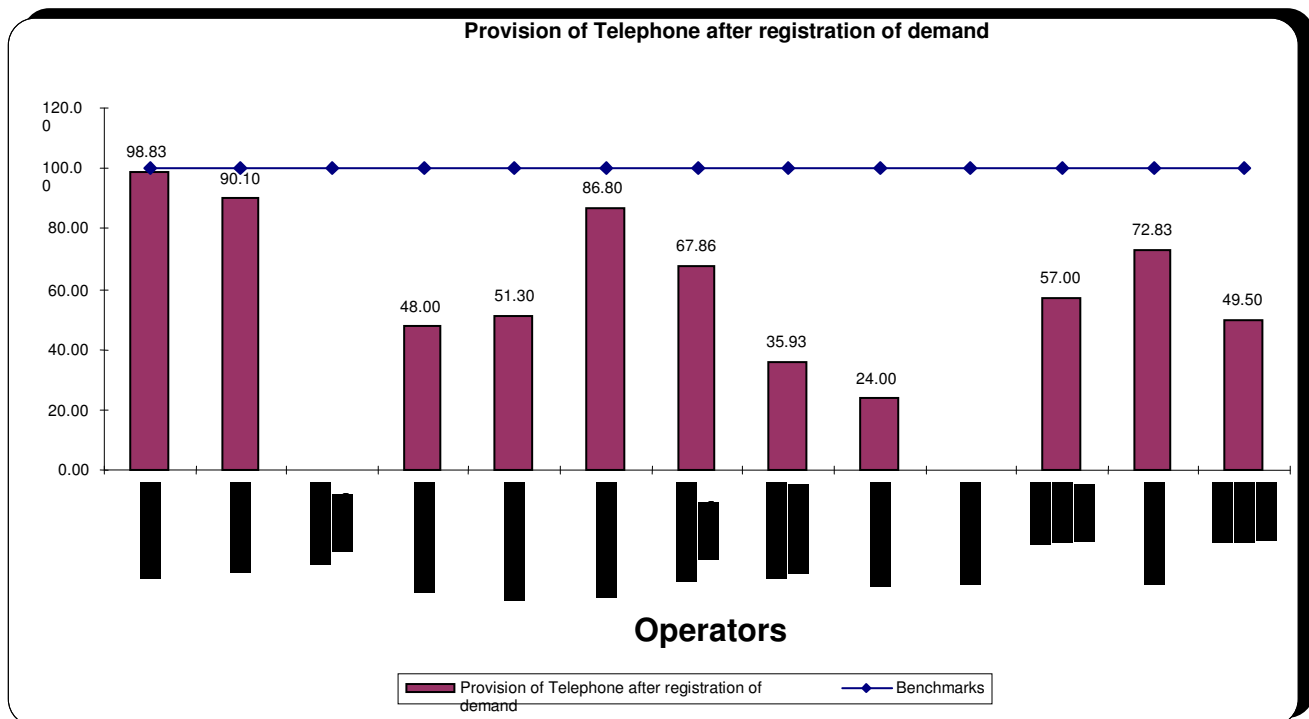
Audit was conducted for 18 operators. Rest 7 operators were not done. 2 operators are not meeting the benchmark parameter. Data not provided by Dishnet J&K. No incidences were observed in case of Reliance Tel HP and BSNL HP



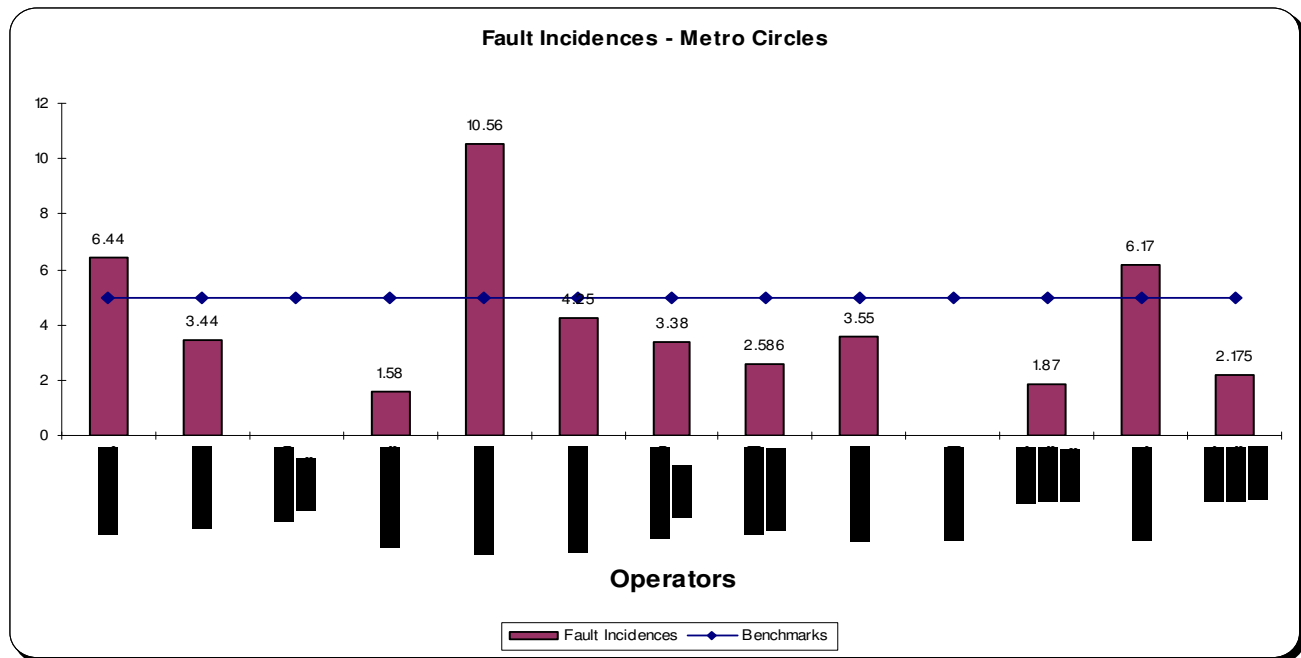
Audit was conducted for 20 operators. Rest 7 operators were not done. 16 Operators are meeting the benchmarks. Data not provided by BSNL J&K. Not applicable for North East Rel Tel. No incidences of refunds were observed at HP – Rel Tel and HP – BSNL.

4.2 QOS – BASIC

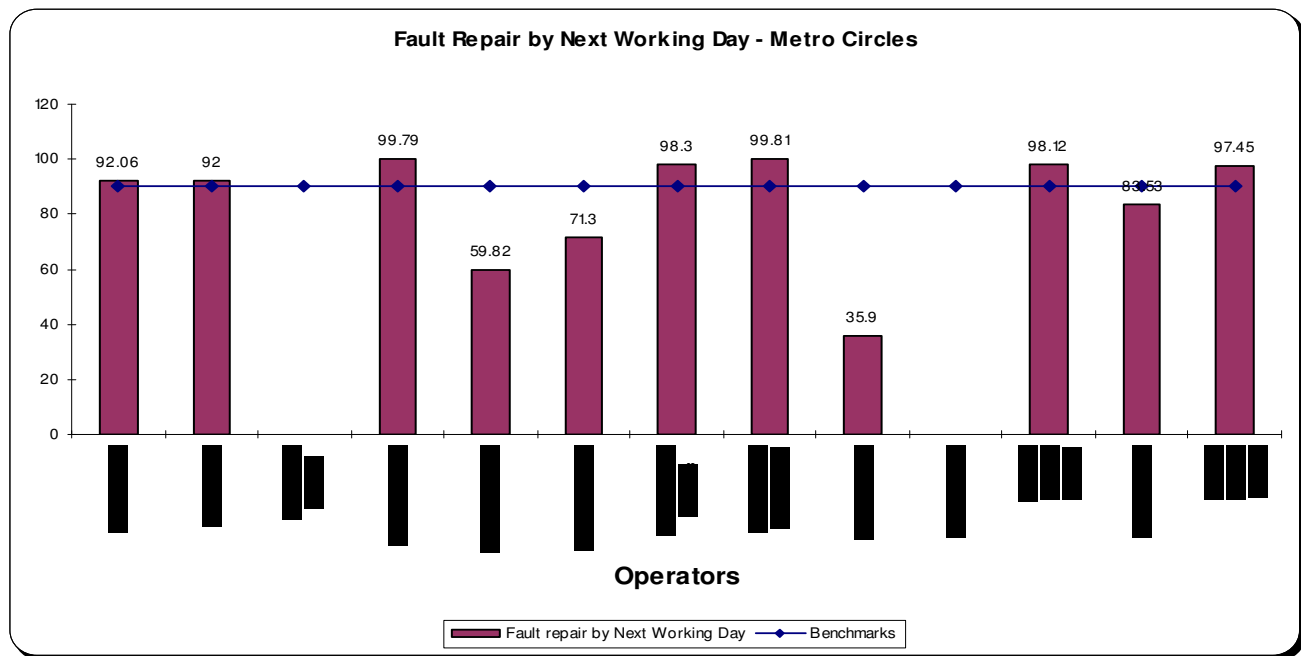
4.2.1 METRO CIRCLES



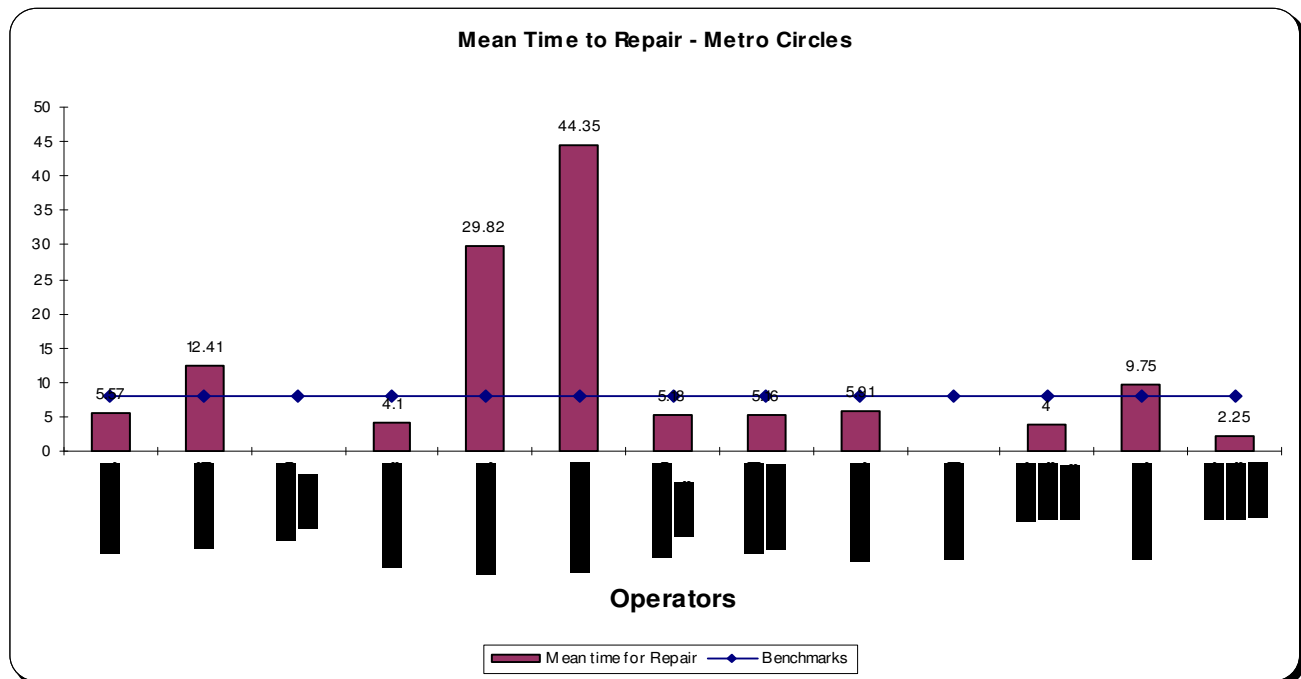
Audit was conducted for 11 operators. Rest 2 operators were not done. 11 operators are not meeting the benchmark parameter.



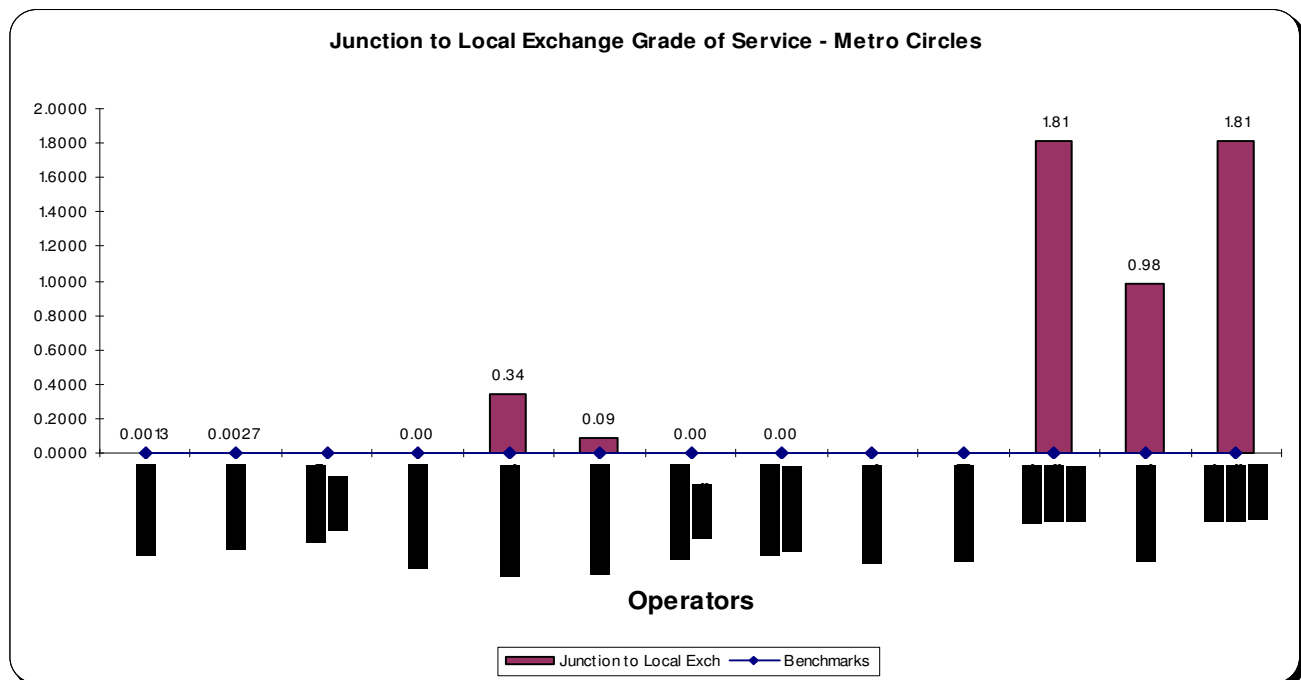
Audit was conducted for 11 operators. Rest 2 operators were not done. 3 operators are not meeting the benchmark parameter.



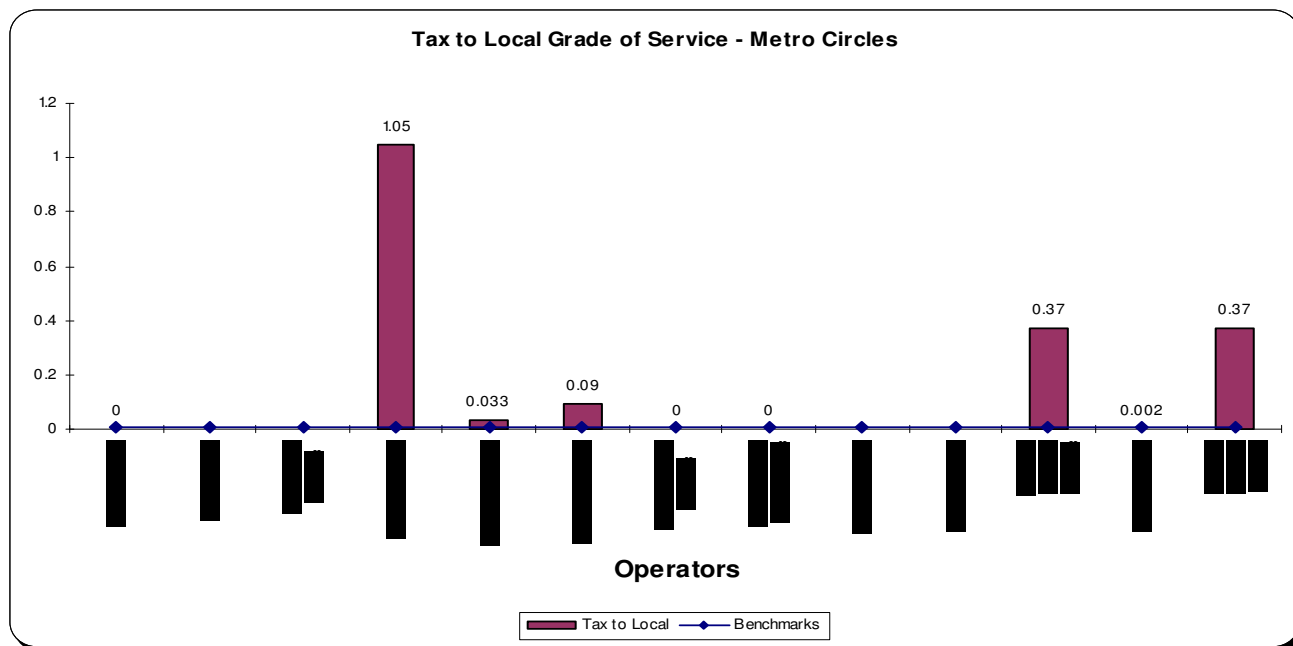
Audit was conducted for 11 operators. Rest 2 operators were not done. 4 operators are not meeting the benchmark parameter.



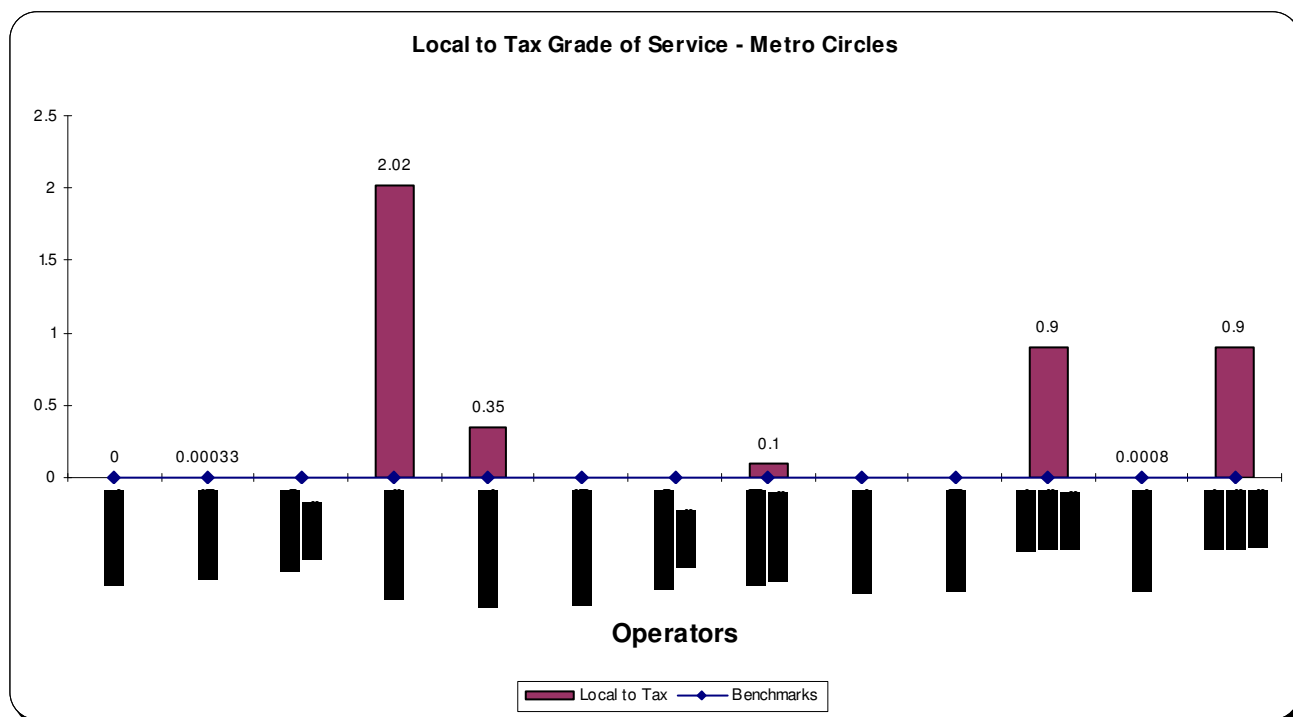
Audit was conducted for 11 operators. Rest 2 operators were not done. 4 operators are not meeting the benchmark parameter.



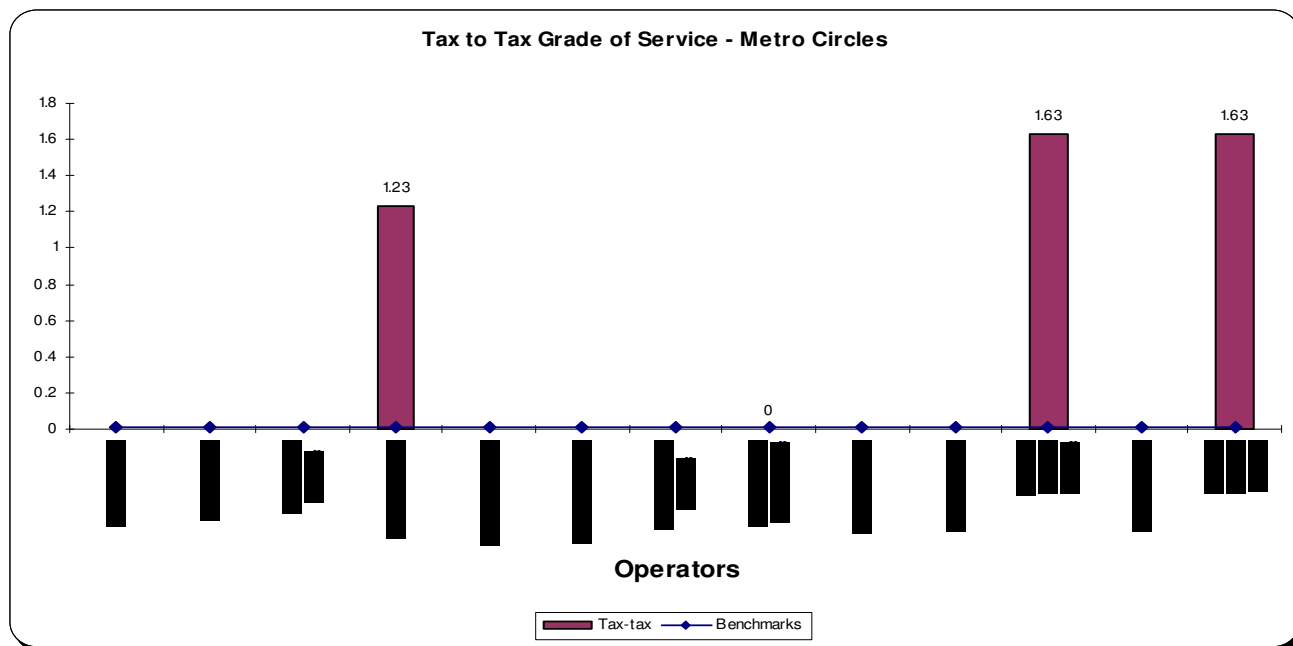
Audit was conducted for 11 operators. Rest 2 operators were not done. 6 operators are not meeting the benchmark parameter. Data not provided by Chennai BSNL.



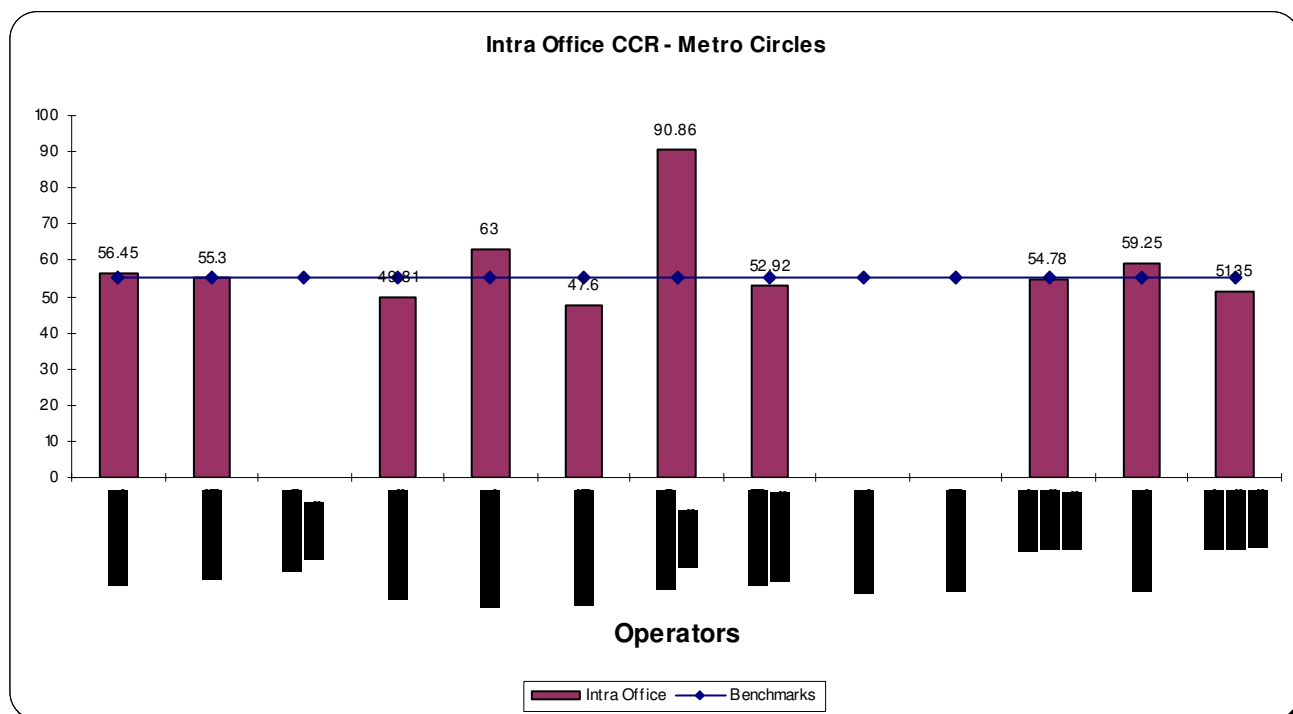
Audit was conducted for 11 operators. Rest 2 operators were not done. 5 operators are not meeting the benchmark parameter. Data not provided by Chennai BSNL. Not applicable for Delhi Bharti.



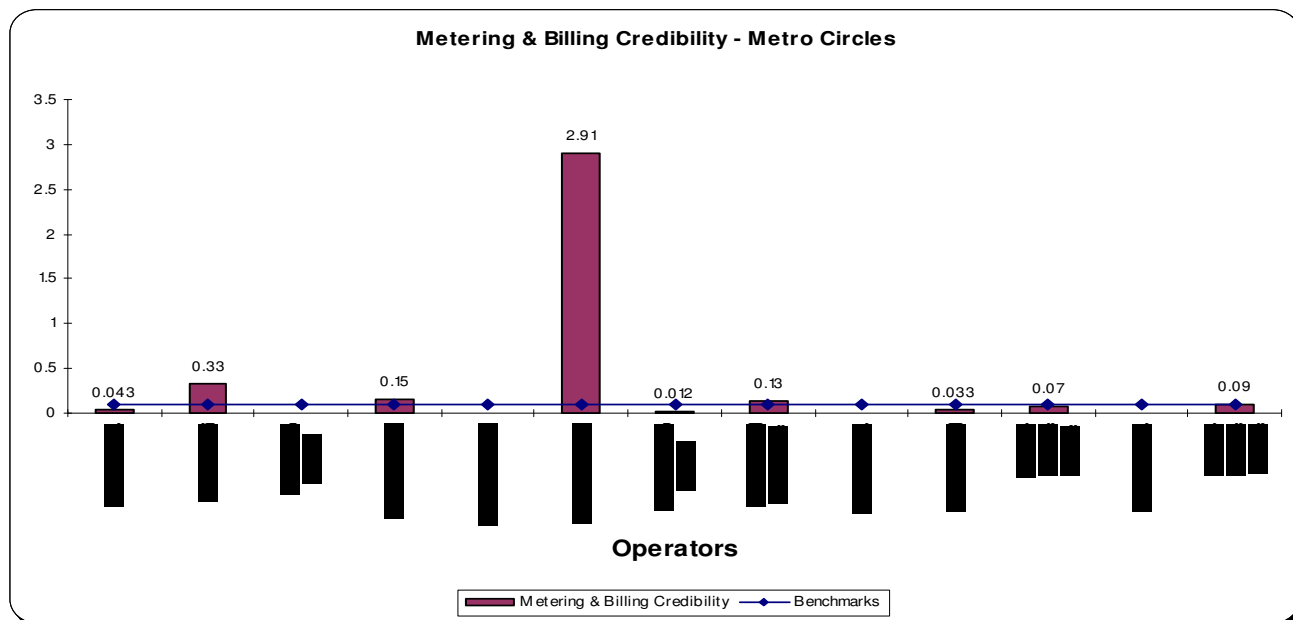
Audit was conducted for 11 operators. Rest 2 operators were not done. 5 operators are not meeting the benchmark parameter. Not applicable for Mumbai Tata and Bharti. Data not provided for Chennai BSNL.



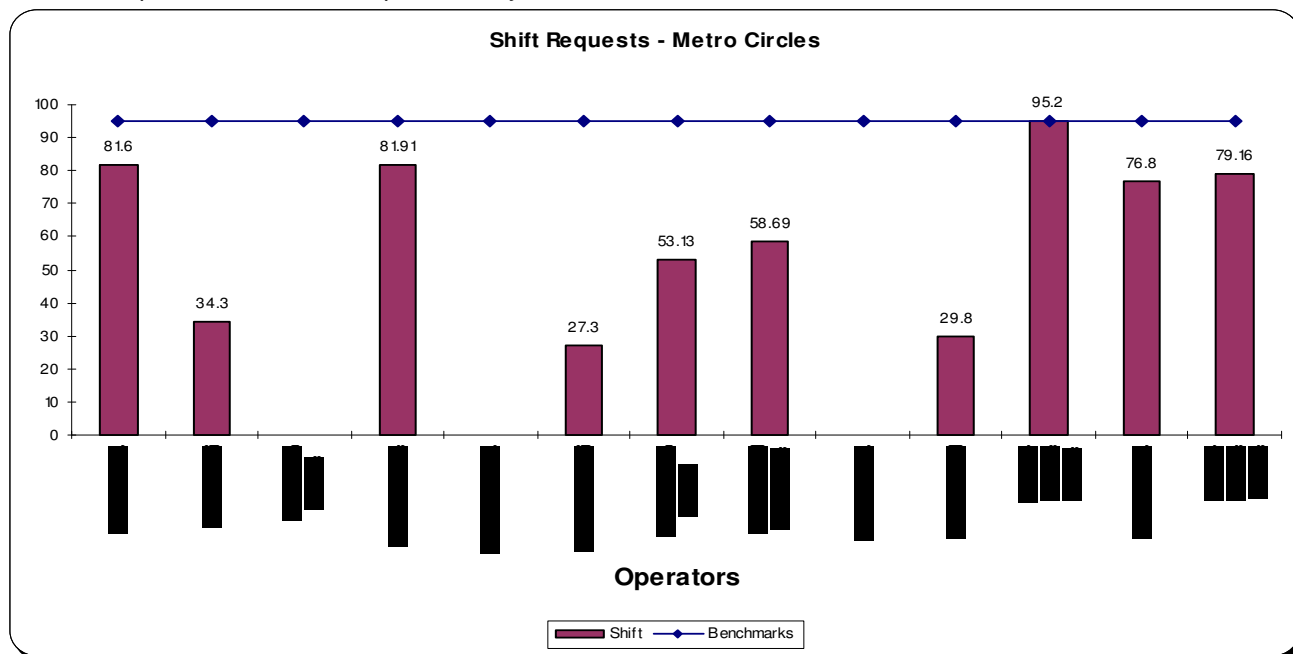
Audit was conducted for 11 operators. Rest 2 operators were not done. 3 operators are not meeting the benchmark parameter. Data not provided by MTNL Delhi and Chennai BSNL. Not applicable for Bharti Delhi, Mumbai MTNL, Bharti, Tata and Kolkata BSNL.



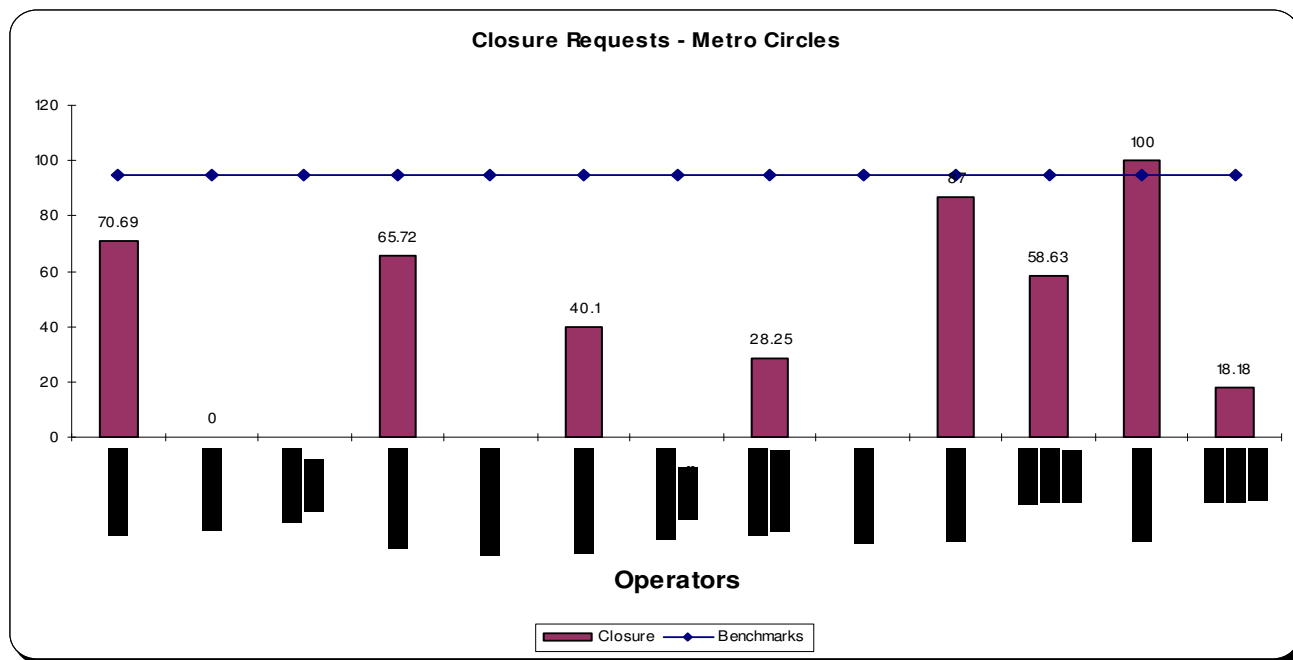
Audit was conducted for 11 operators. Rest 2 operators were not done. 5 operators are not meeting the benchmark parameter. Data not provided by Chennai BSNL.



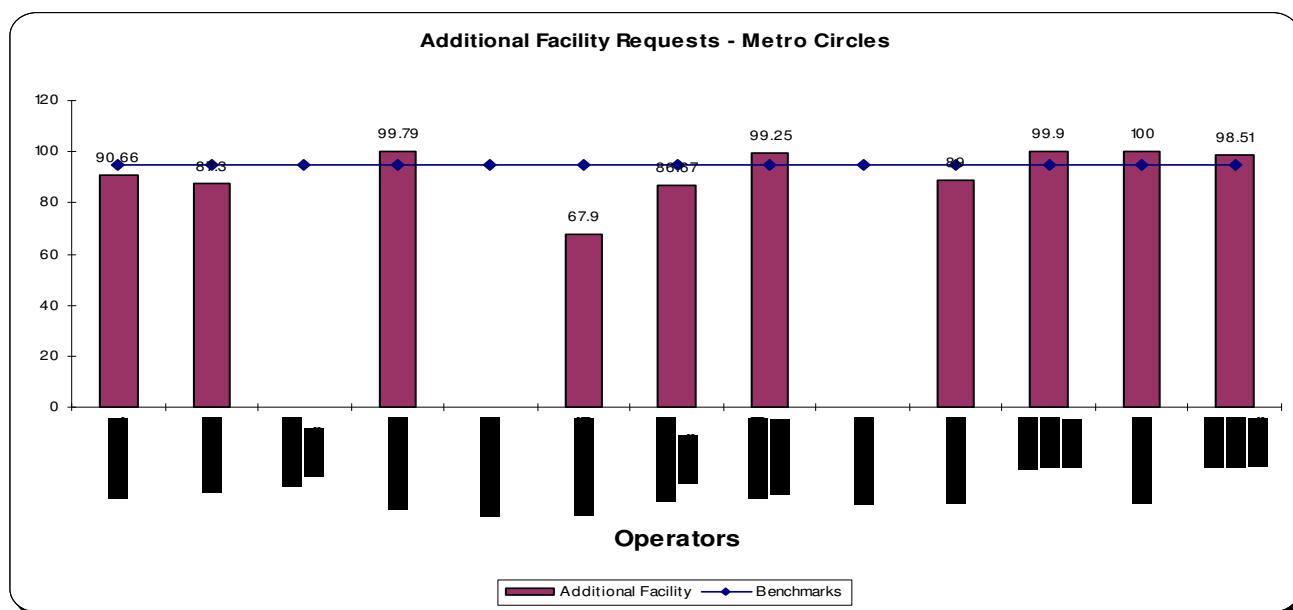
Audit was conducted for 11 operators. Rest 2 operators were not done. 4 operators are not meeting the benchmark parameter. Data not provided by Chennai BSNL and Kolkata BSNL.



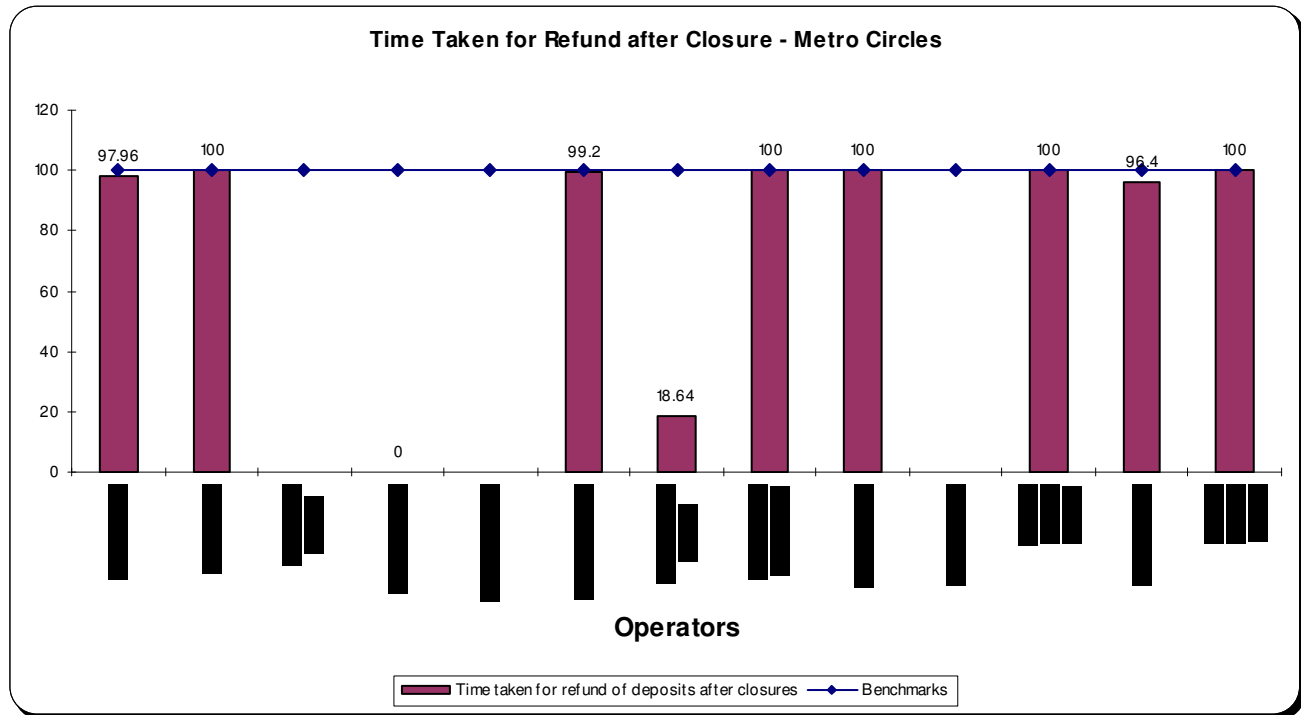
Audit was conducted for 11 operators. Rest 2 operators were not done. 9 operators are not meeting the benchmark parameter. Data not provided by Chennai BSNL.



Audit was conducted for 11 operators. Rest 2 operators were not done. 8 operator(s) are not meeting the benchmark parameter. Not applicable for Mumbai Tata. Data not provided by Chennai BSNL.

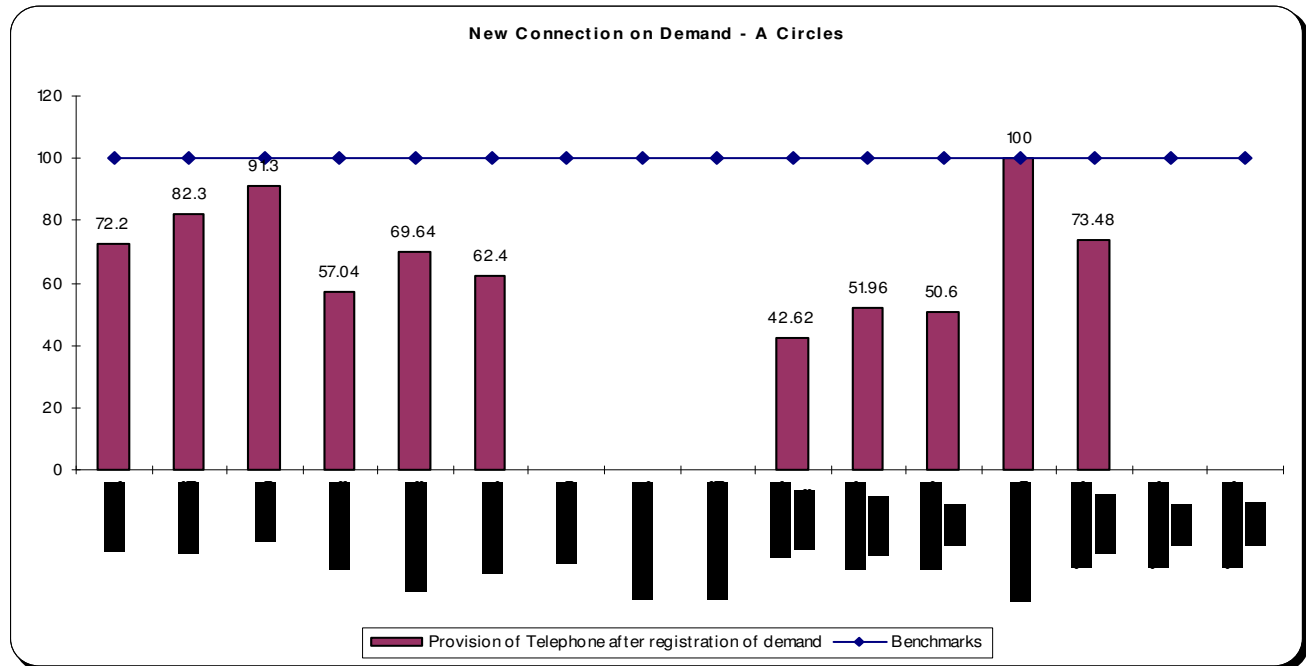


Audit was conducted for 11 operators. Rest 2 operators were not done. 5 operators are not meeting the benchmark parameter. Data not provided by Chennai BSNL.

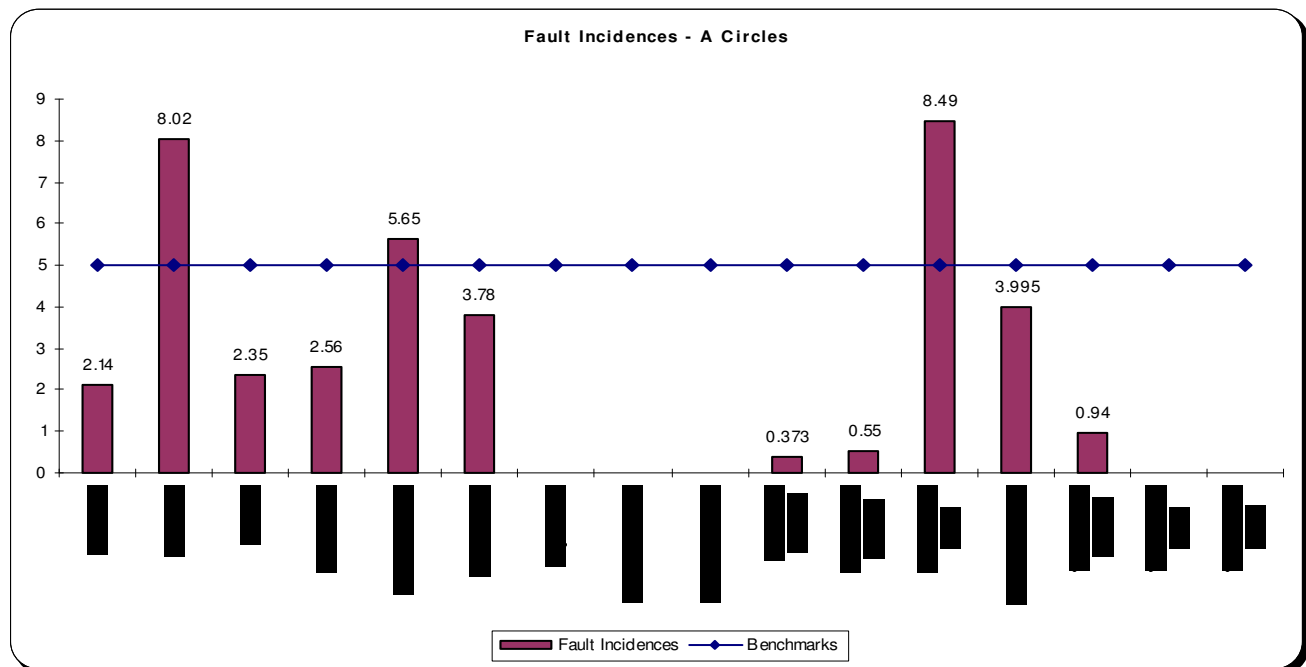


Audit was conducted for 11 operators. Rest 2 operators were not done. 5 operators are not meeting the benchmark parameter. No incidences were observed for Chennai - Bharti

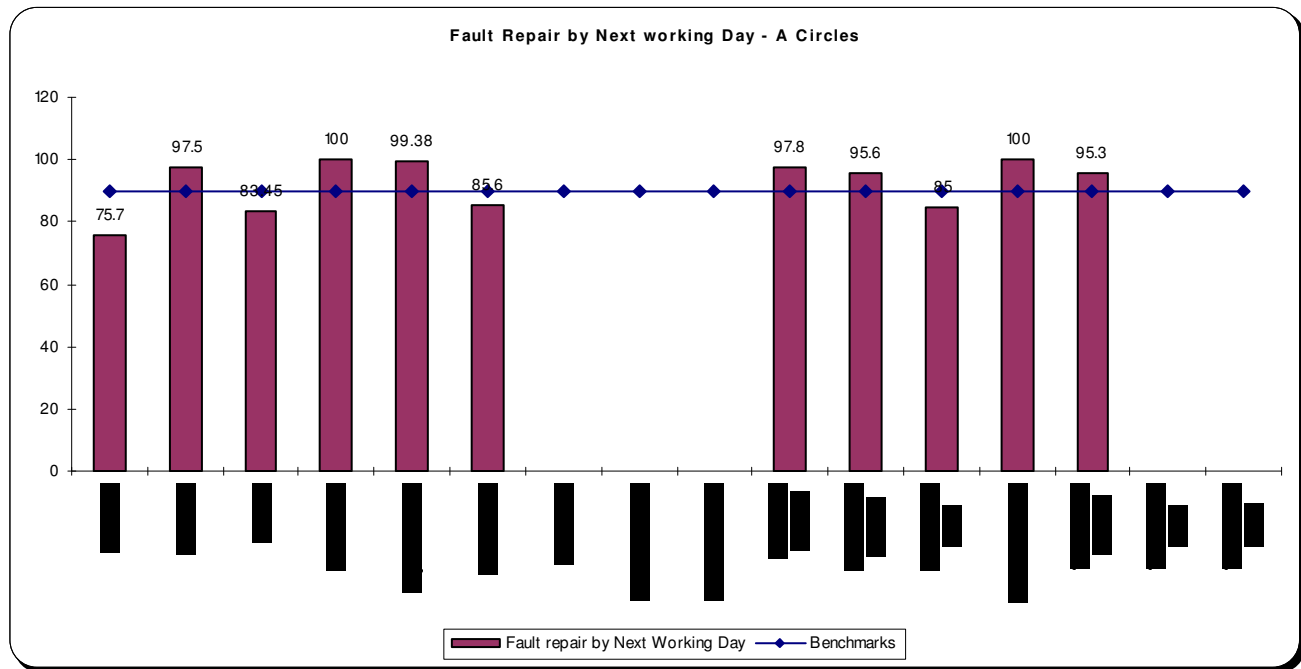
4.2.2 A CIRCLES



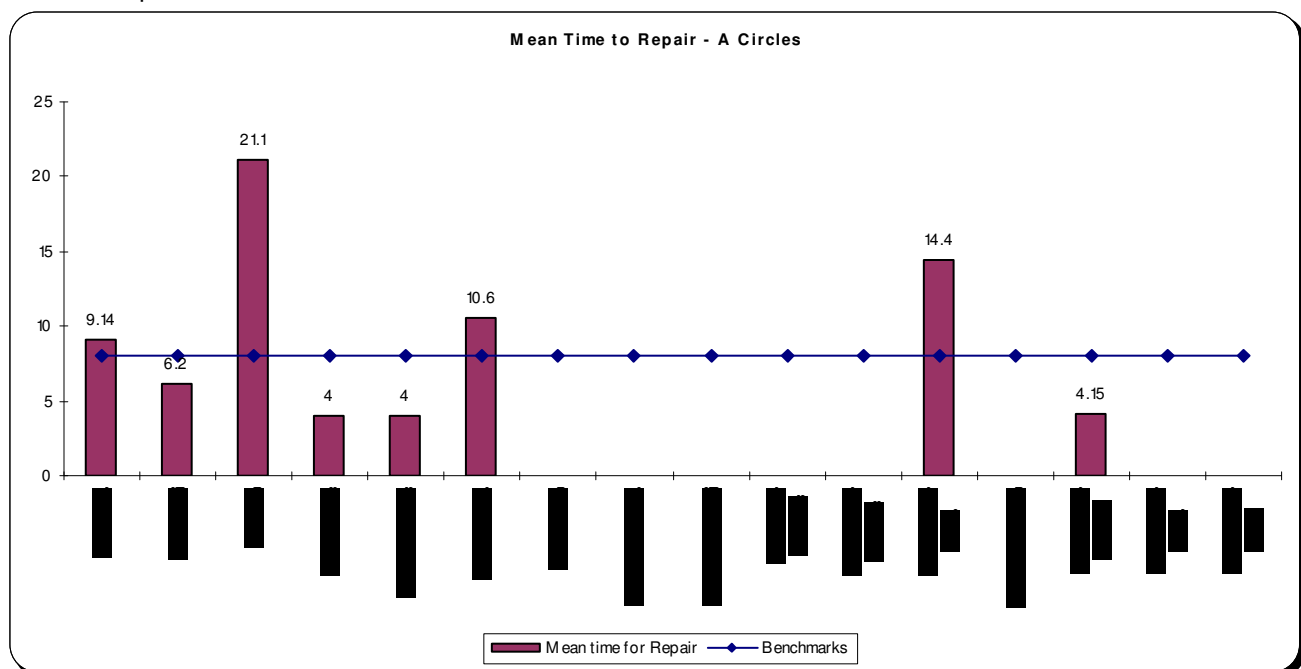
Audit was conducted for 11 operators. Rest 5 operators were not done. 10 operators are not meeting the benchmark parameter.



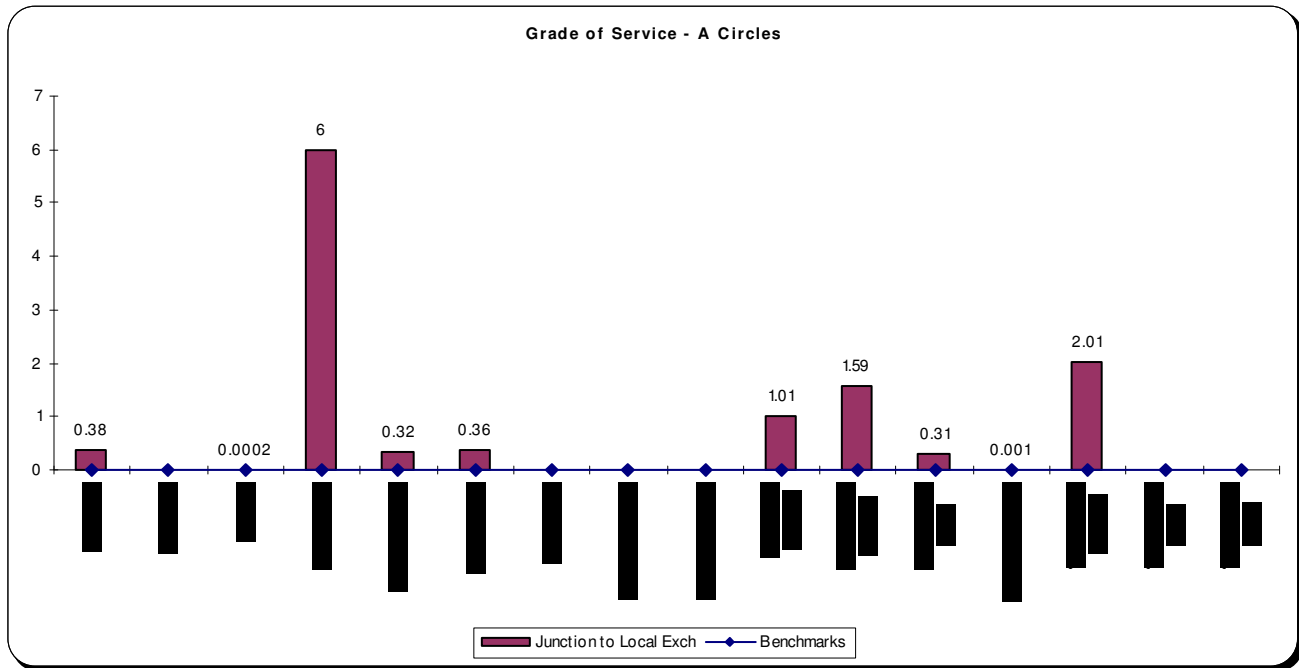
Audit was conducted for 11 operators. Rest 5 operators were not done. 3 operators are not meeting the benchmark parameter.



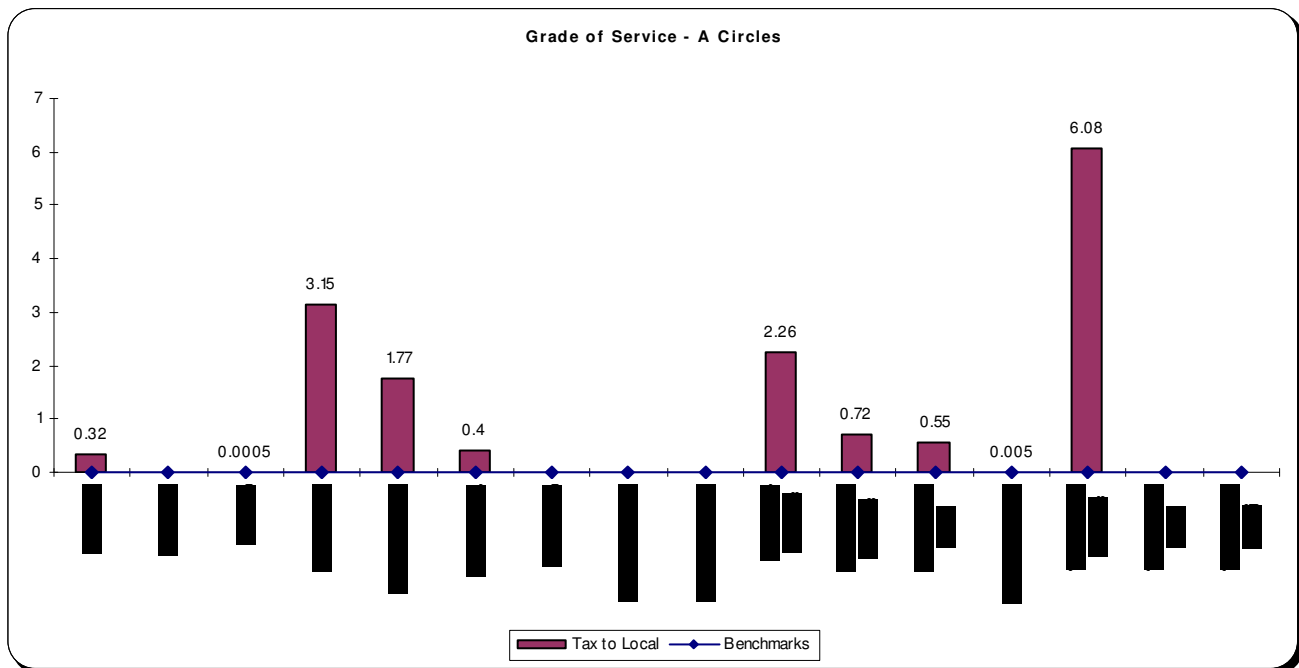
Audit was conducted for 11 operators. Rest 5 operators were not done 4 operators are not meeting the benchmark parameter.



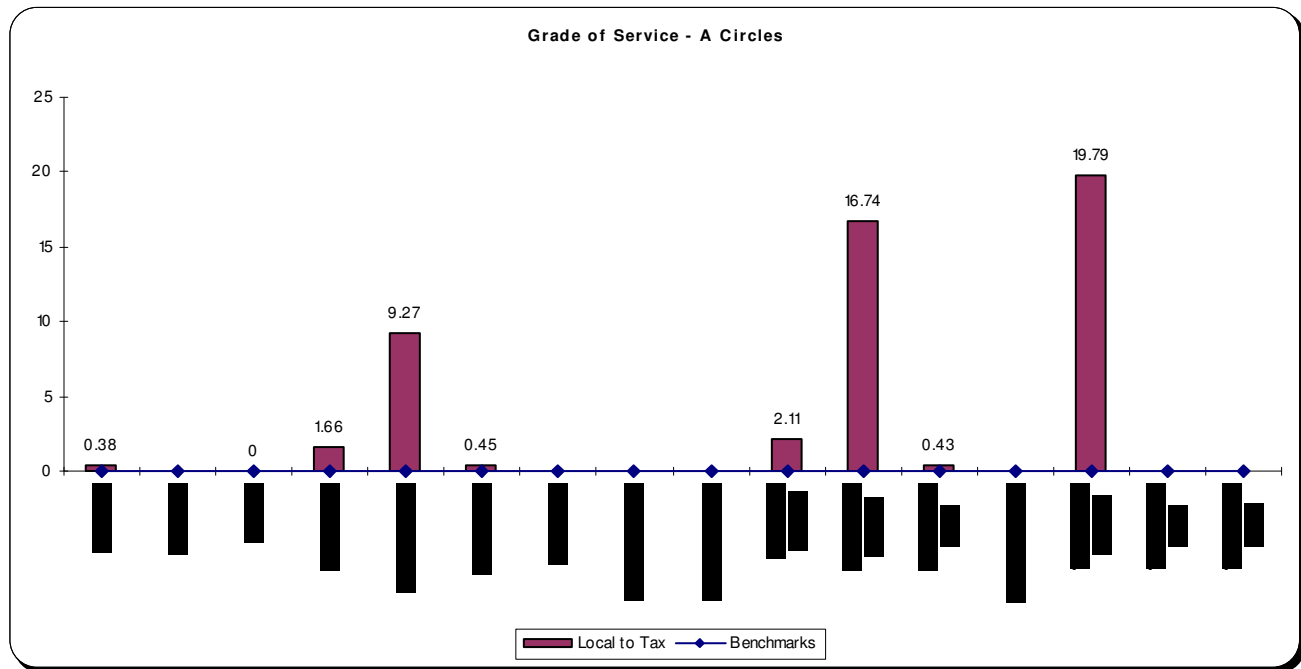
Audit was conducted for 11 operators. Rest 5 operators were not done. 4 operators are not meeting the benchmark parameter. Data not provided by Reliance Karnataka, Reliance Maharashtra and Tata Maharashtra.



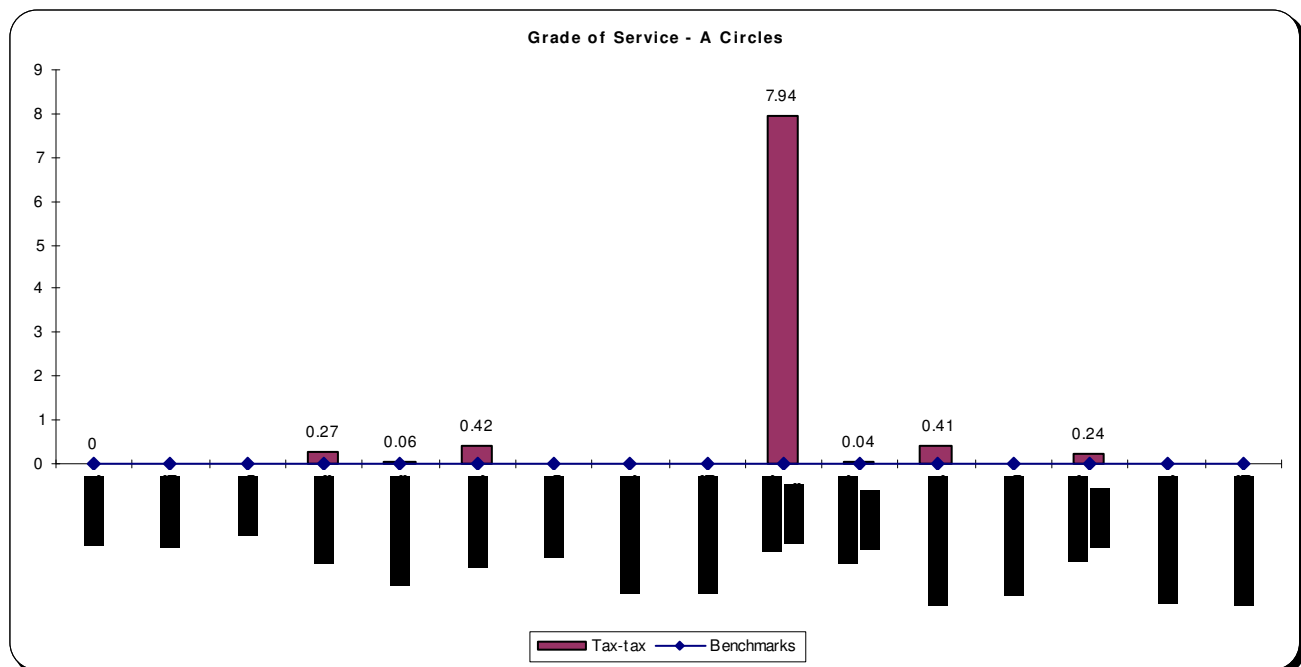
Audit was conducted for 11 operators. Rest 5 operators were not done. 8 operators are not meeting the benchmark parameter. Data not provided by Andhra Pradesh Bharti.



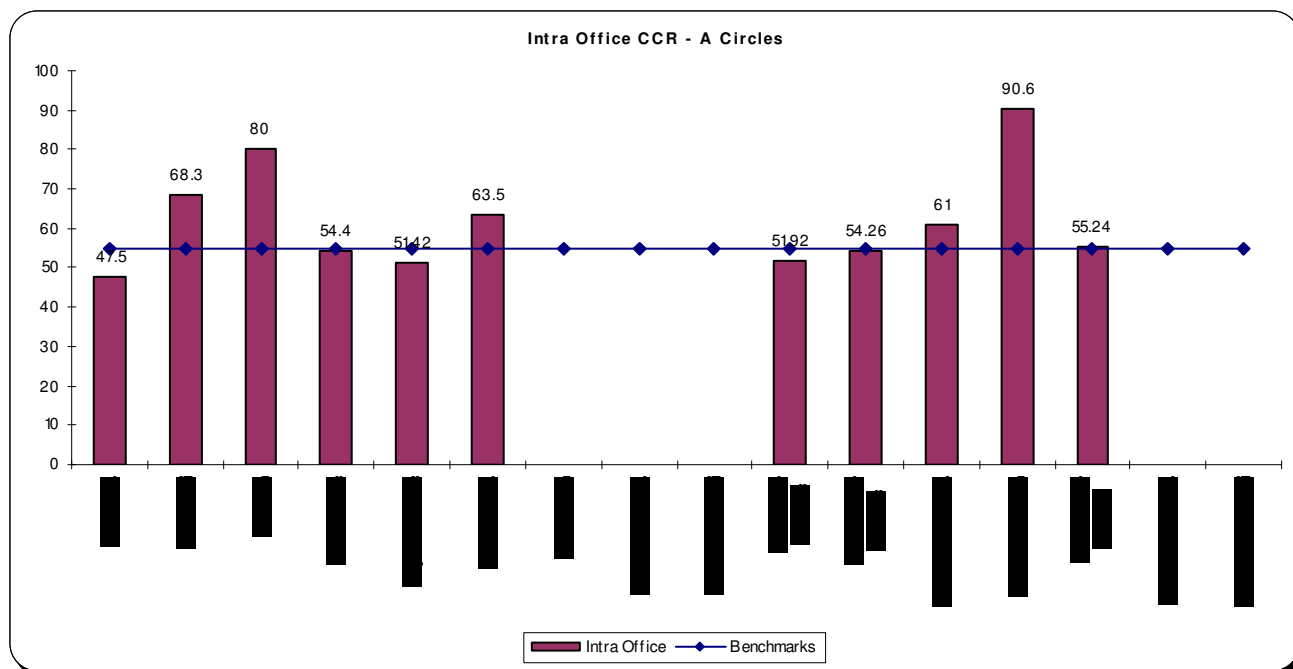
Audit was conducted for 11 operators. Rest 5 operators were not done. 8 operators are not meeting the benchmark parameter. Data not provided by Bharti AP.



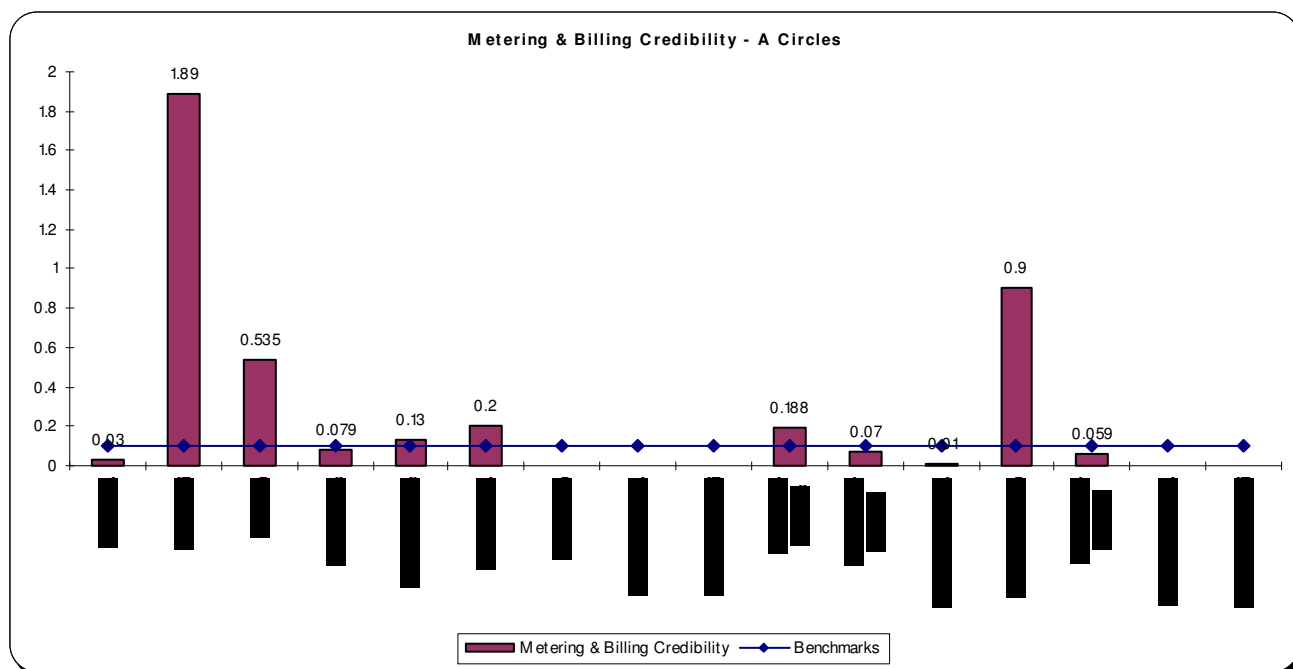
Audit was conducted for 11 operators. Rest 5 operators were not done. 8 operators are not meeting the benchmark parameter. Data not provided by Bharti AP. Not applicable for Tata Maharashtra.



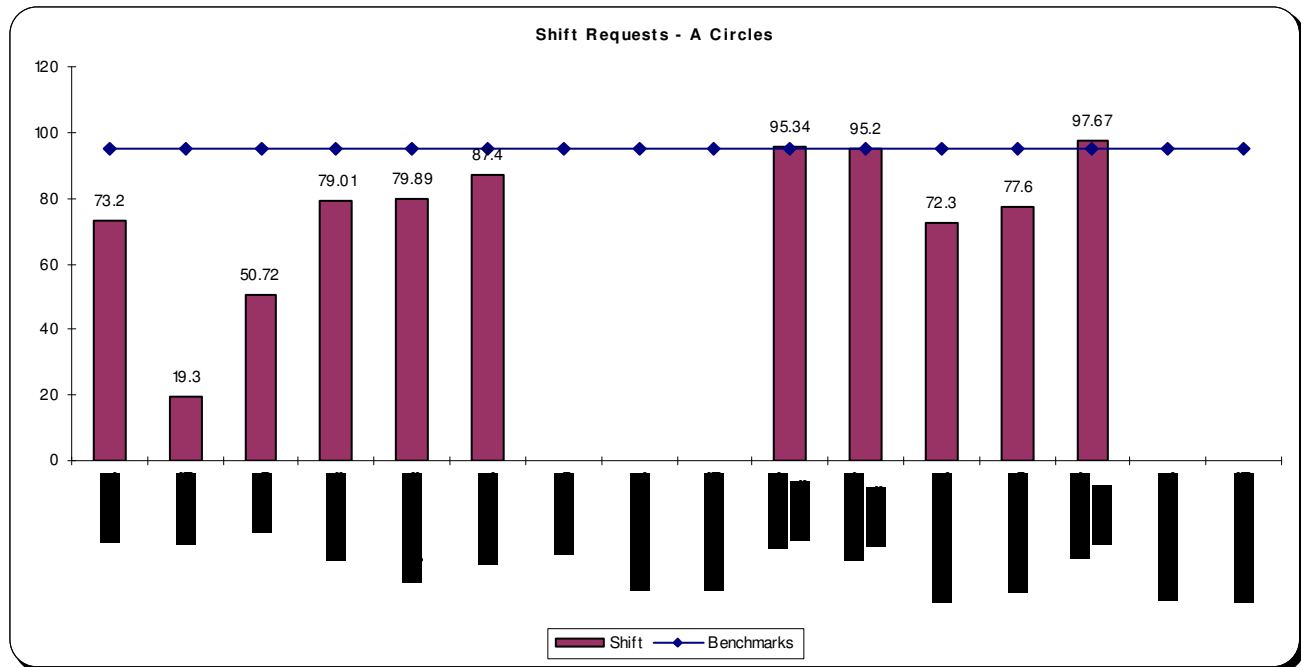
Audit was conducted for 11 operators. Rest 5 operators were not done. 7 operators are not meeting the benchmark parameter. Data not provided by Bharti AP. Not applicable for Tata AP and Maharashtra.



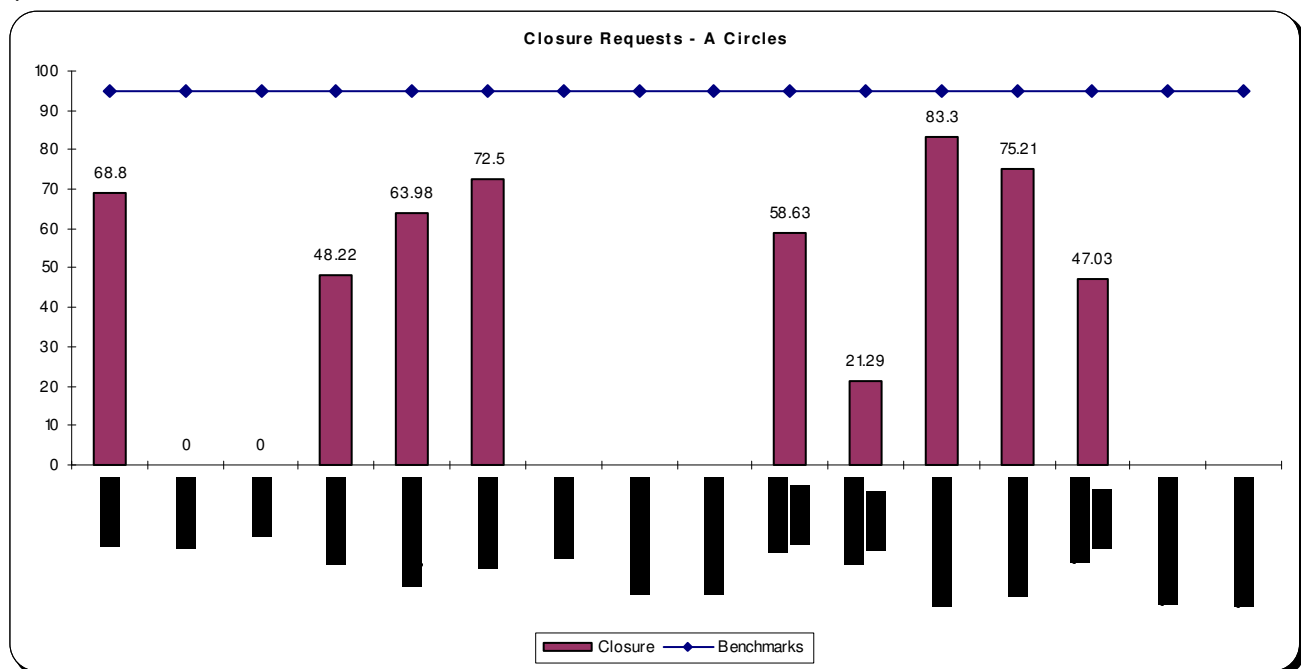
Audit was conducted for 11 operators. 5 operators are not meeting the benchmark parameter. Rest 5 operators were not done



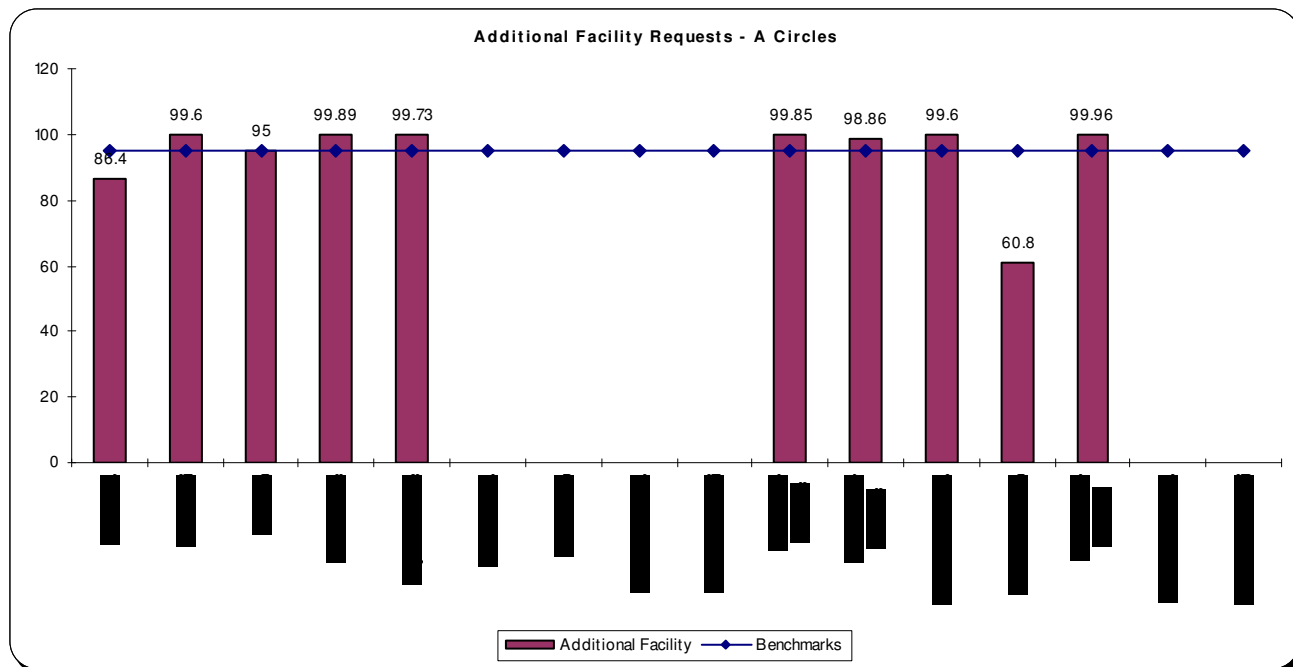
Audit was conducted for 11 operators. Rest 5 operators were not done. 6 operators are not meeting the benchmark parameter.



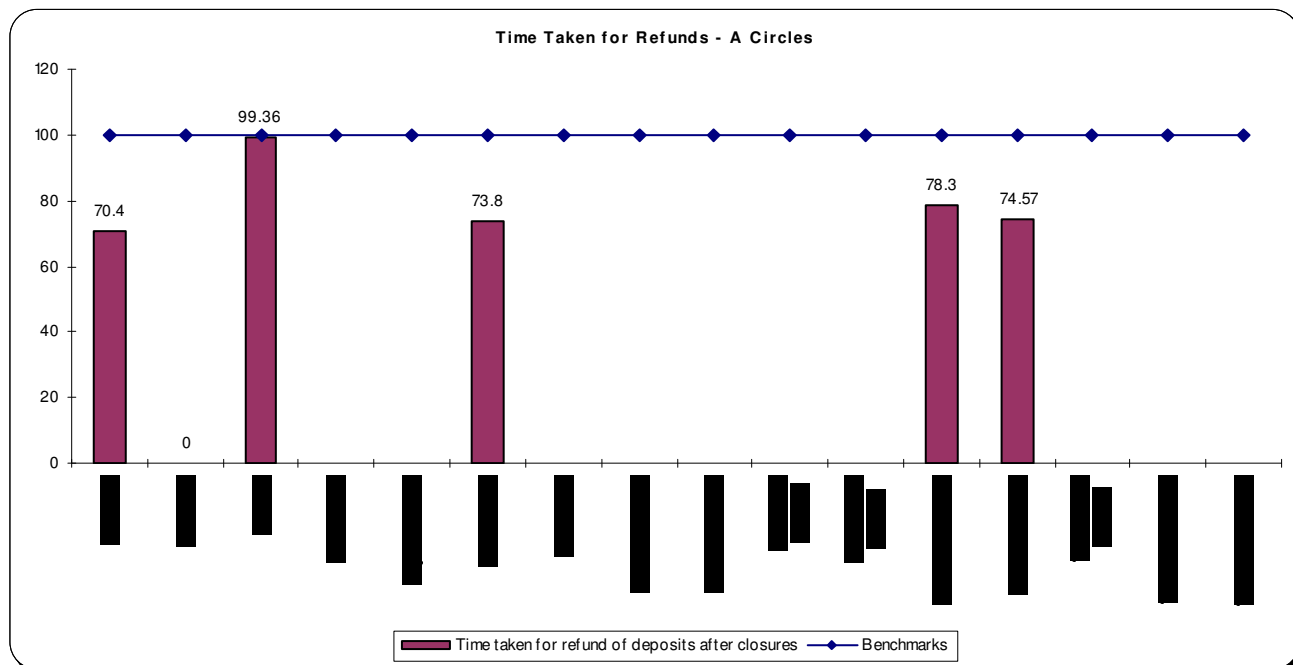
Audit was conducted for 11 operators. 08 operators are not meeting the benchmark parameter. Rest 5 operators were not done.



Audit was conducted for 11 operators. Rest 5 operators were not done. 11 operators are not meeting the benchmark parameter.

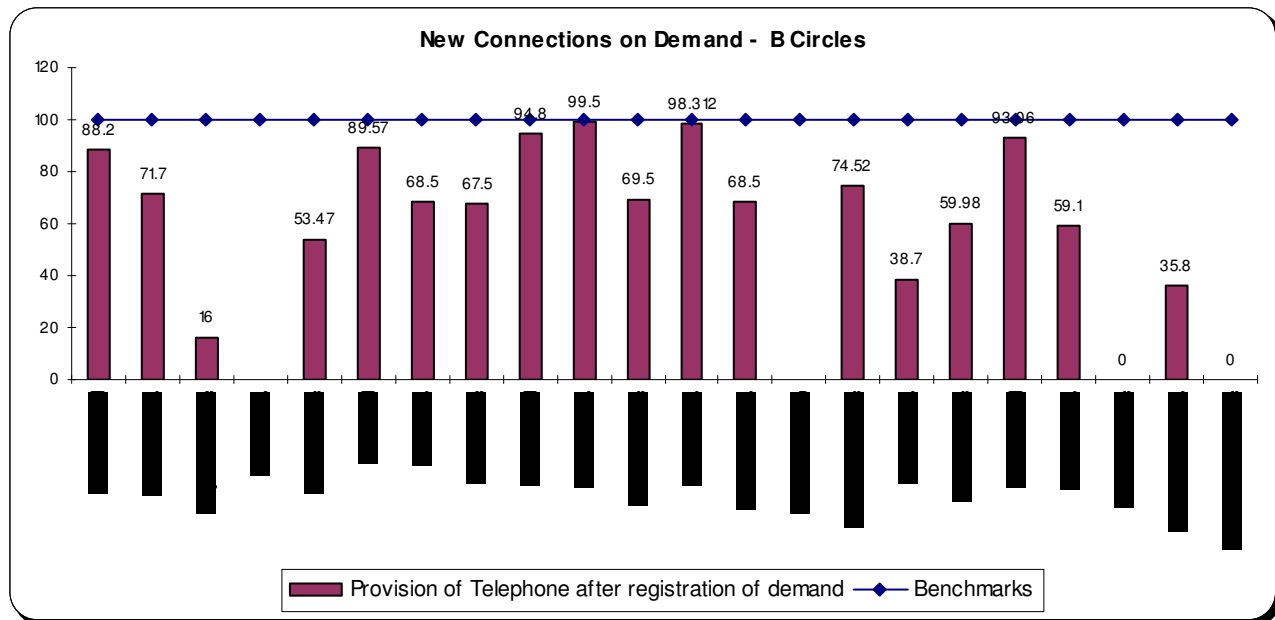


Audit was conducted for 11 operators. Rest 5 operators were not done. 2 operators are not meeting the benchmark parameter. Data not provided by BSNL Gujarat.

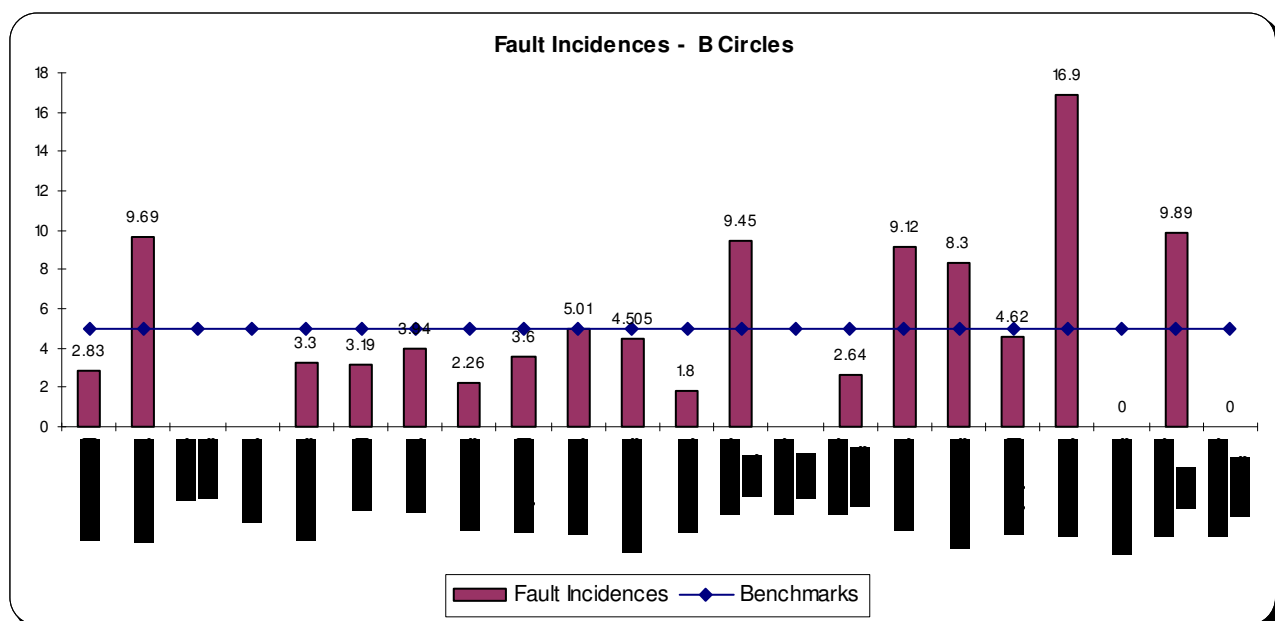


Audit was conducted for 11 operators. Rest 5 operators were not done. 6 operators are not meeting the benchmark parameter. No incidences were observed for AP – Reliance, Gujarat – Reliance, Karnataka – Reliance, Maharashtra – Reliance and Tamil Nadu – Reliance.

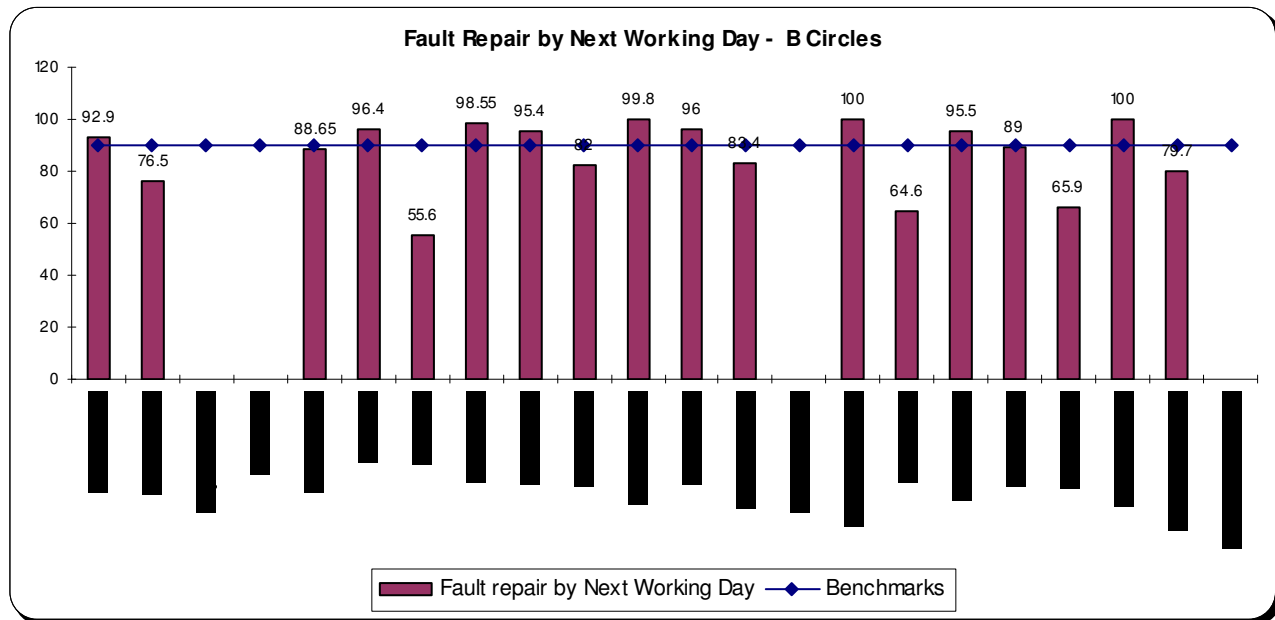
4.2.3 B CIRCLES



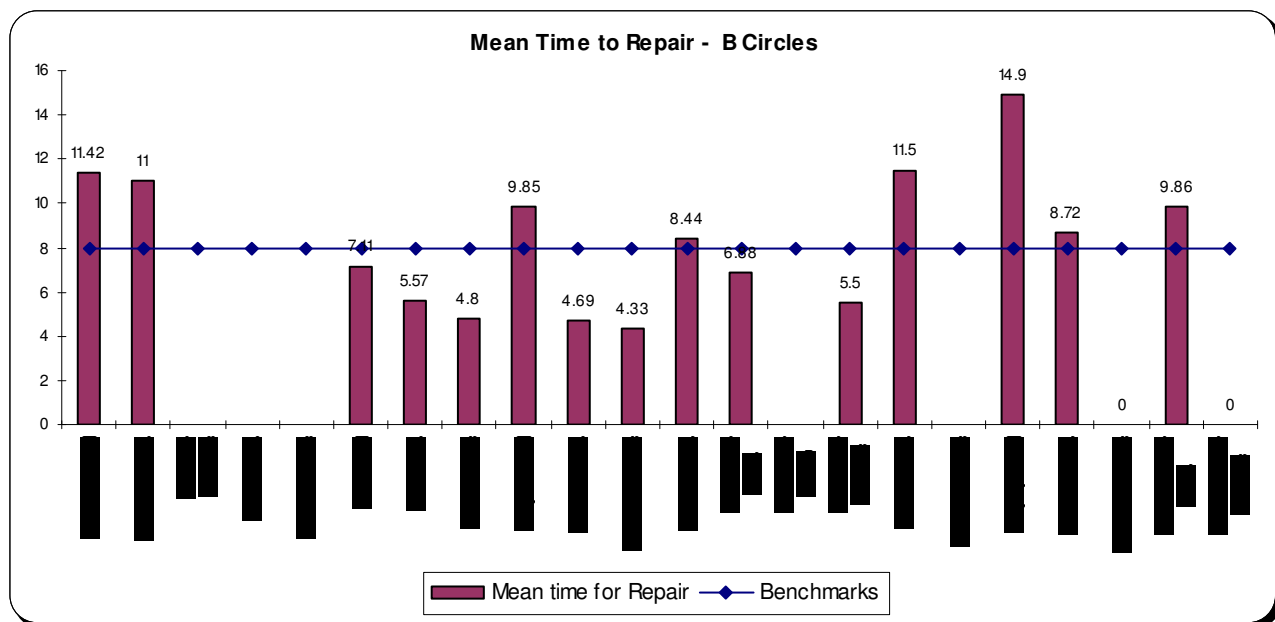
Audit was conducted for 20 operators. Rest 2 operators were not done. 20 operators are not meeting the benchmark parameter.



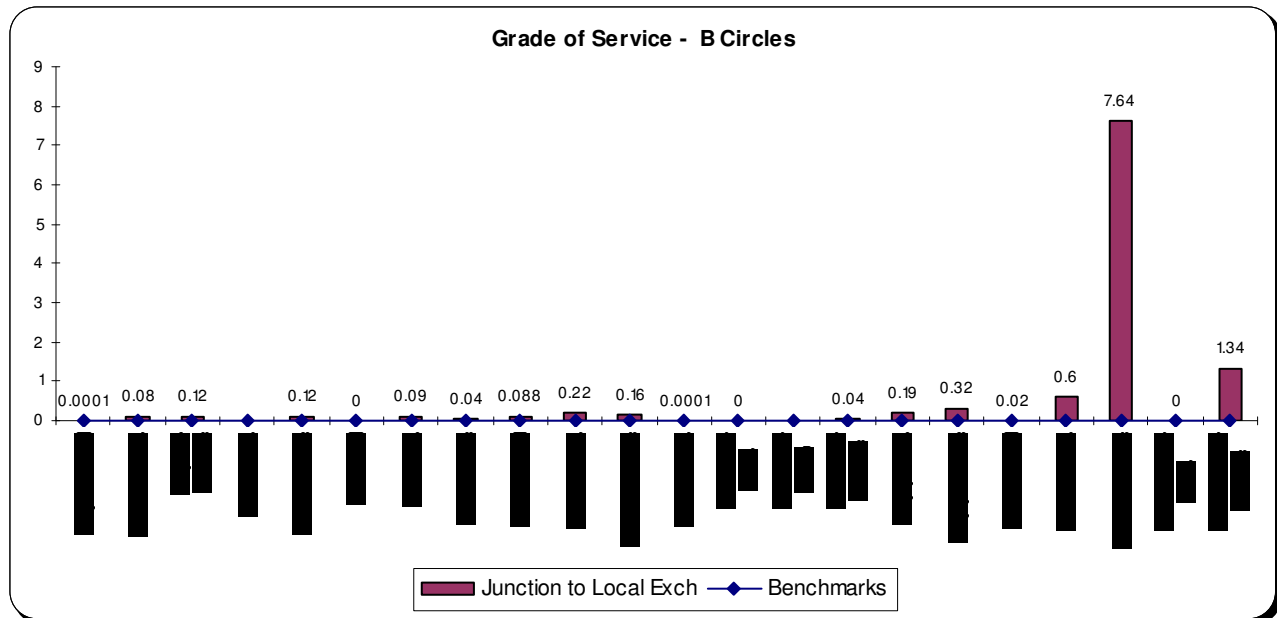
Audit was conducted for 20 operators. Rest 2 operators were not done. 7 operators are not meeting the benchmark parameter. No incidences were observed in case of Haryana – Reliance.



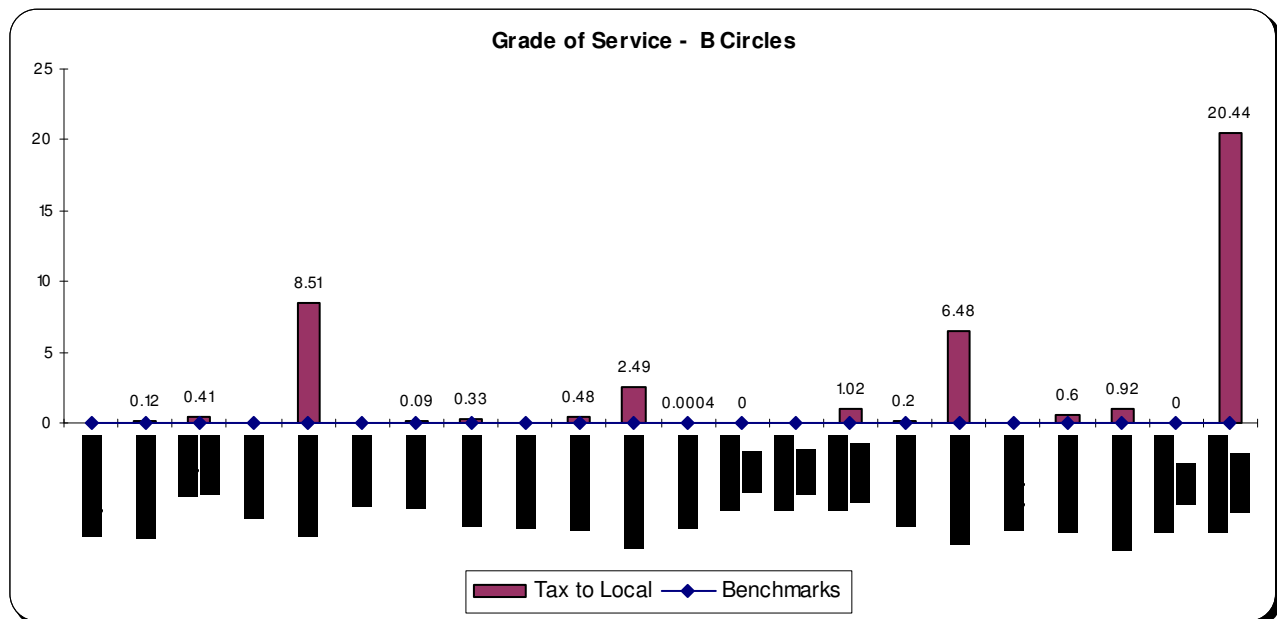
Audit was conducted for 20 operators. Rest 2 operators were not done. 9 operators are not meeting the benchmark parameter. No incidences were observed in case of Haryana – Reliance and WB – Reliance.



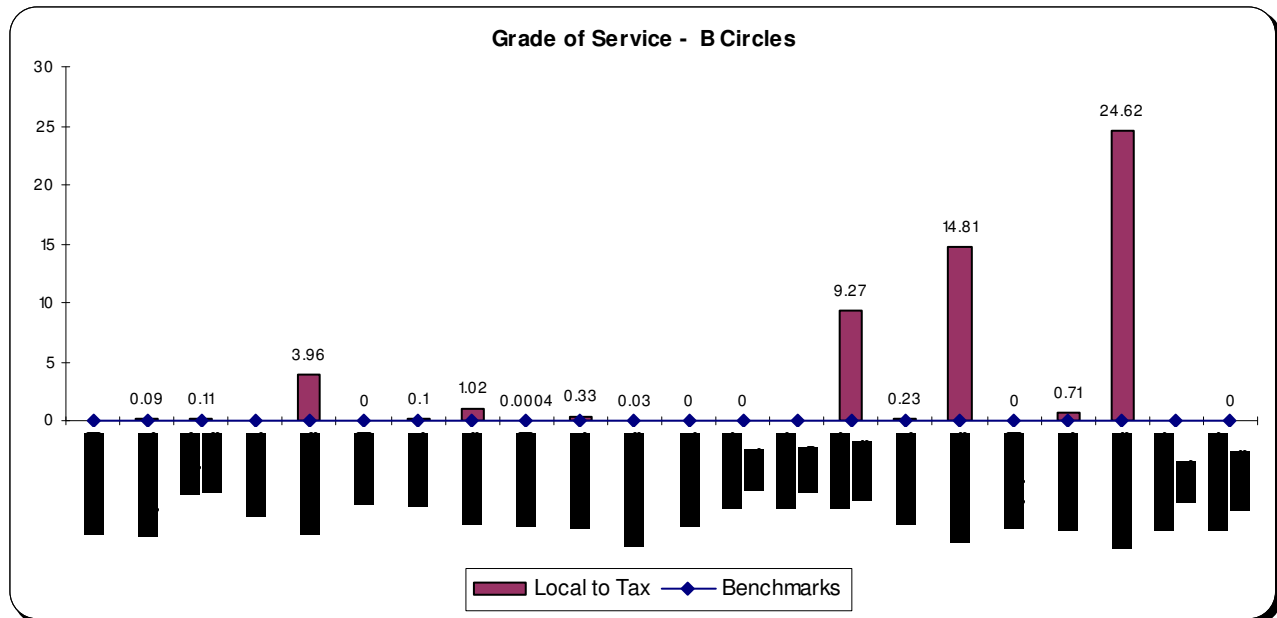
Audit was conducted for 20 operators. Rest 2 operators were not done. 8 operators are not meeting the benchmark parameter. Data not provided by Reliance Haryana, Reliance Kerala and Reliance UP East.



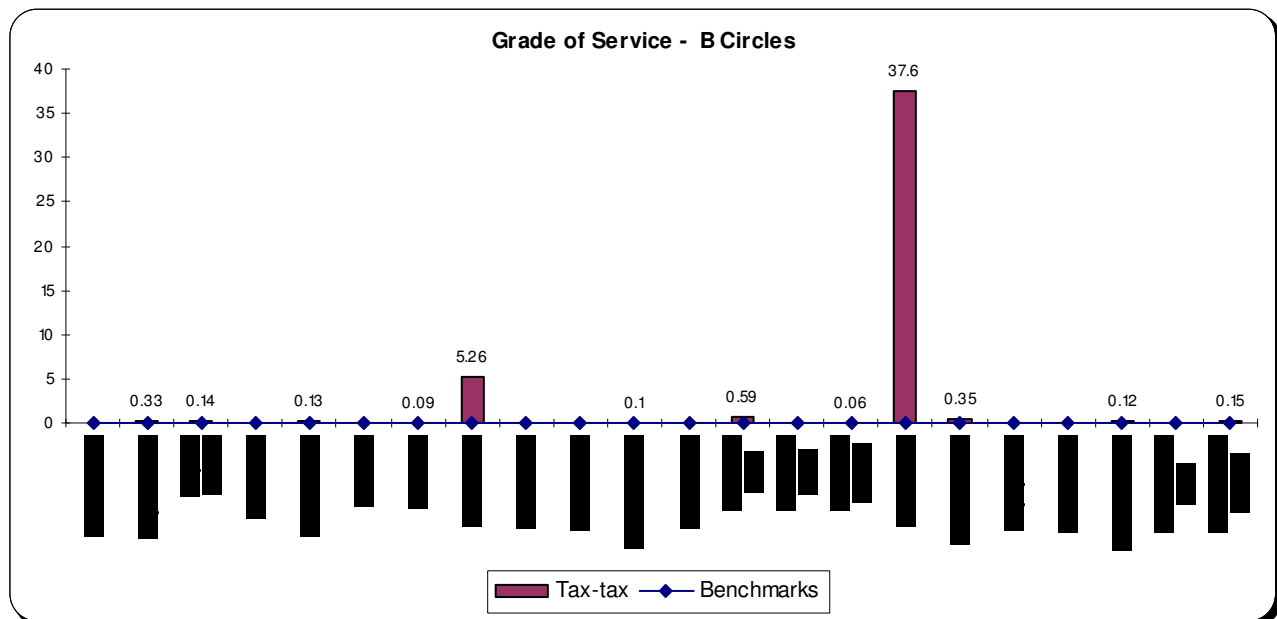
Audit was conducted for 20 operators. Rest 2 operators were not done. 15 operators are not meeting the benchmark parameter.



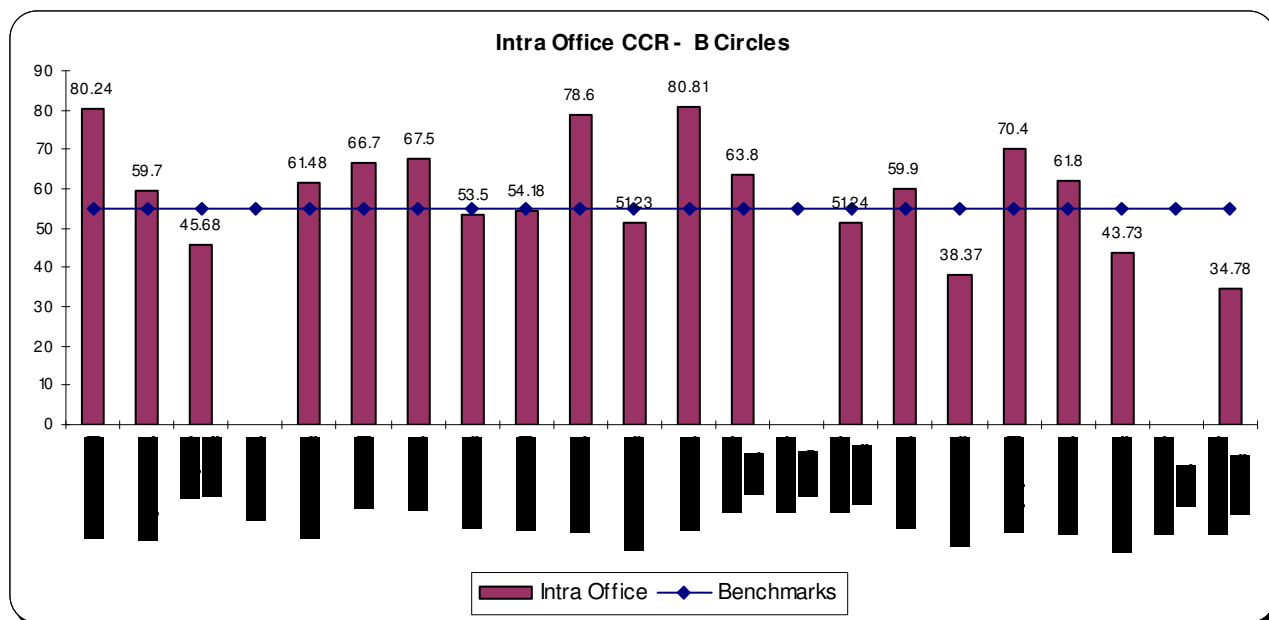
Audit was conducted for 20 operators. Rest 2 operators were not done. 13 operators are not meeting the benchmark parameter. Not applicable for Airtel Haryana, MP, Punjab and UP West



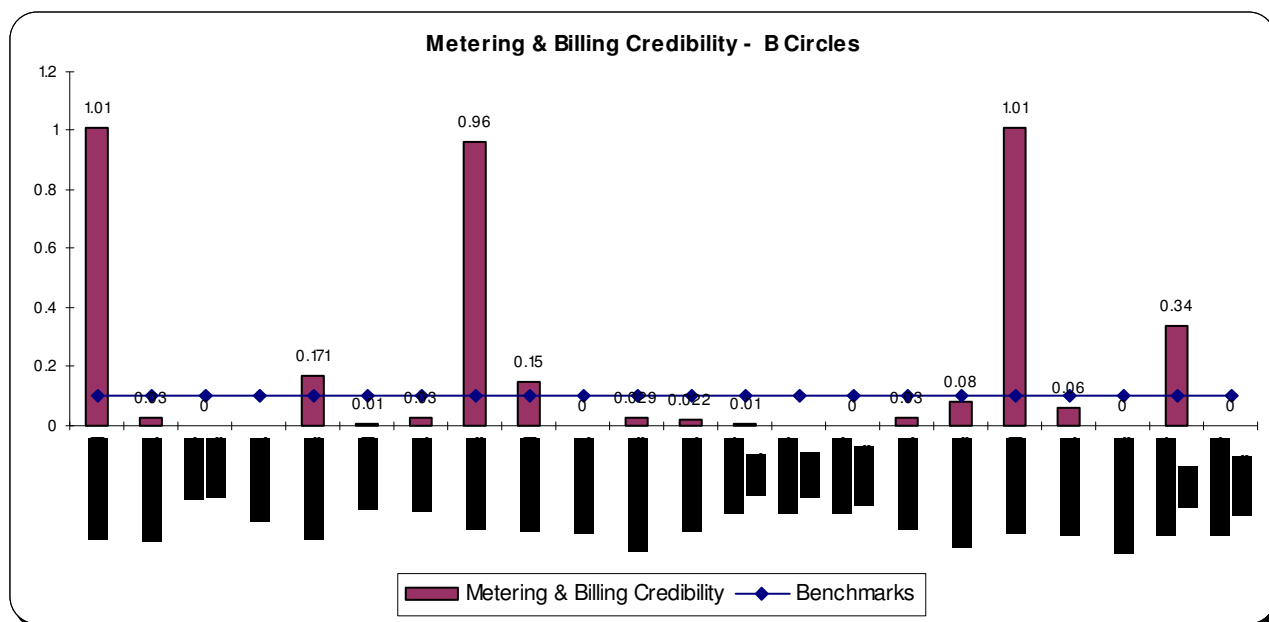
Audit was conducted for 20 operators. 12 operators are not meeting the benchmark parameter. Rest 2 operators were not done. Not applicable for Airtel Haryana and West Bengal BSNL.



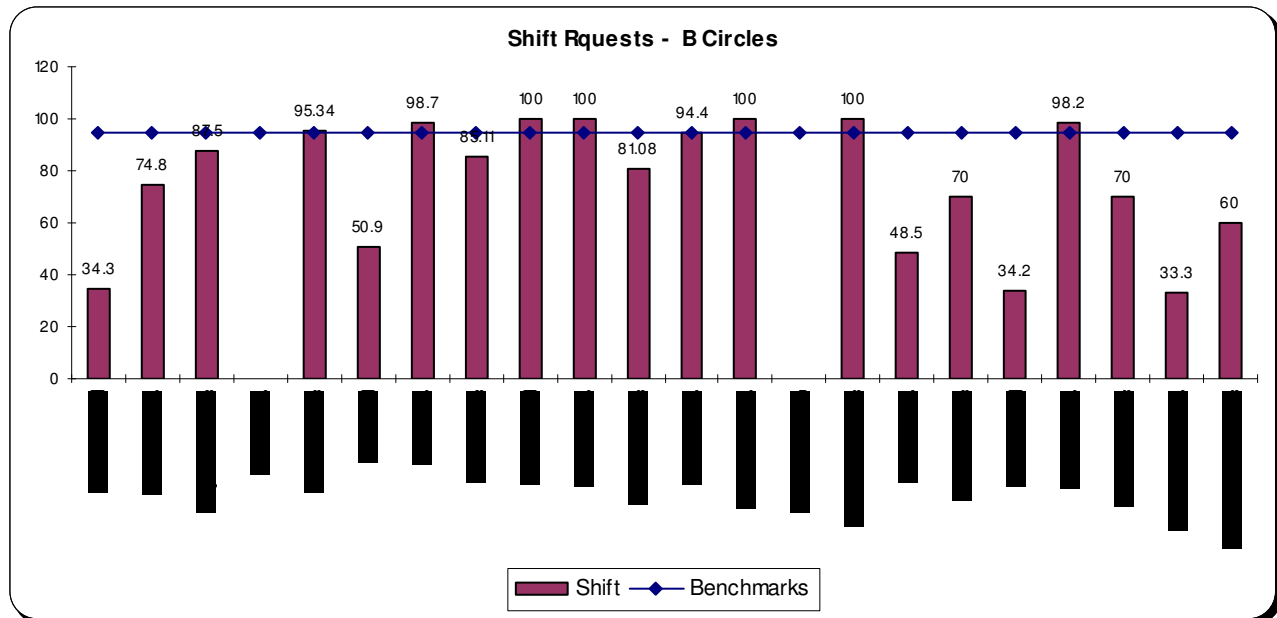
Audit was conducted for 20 operators. Rest 2 operators were not done. 12 operators are not meeting the benchmark parameter. Data not provided by BSNL Punjab. Not applicable for Airtel Haryana, MP, Punjab and UP West, HFCL Punjab, BSNL UP West and BSNL West Bengal.



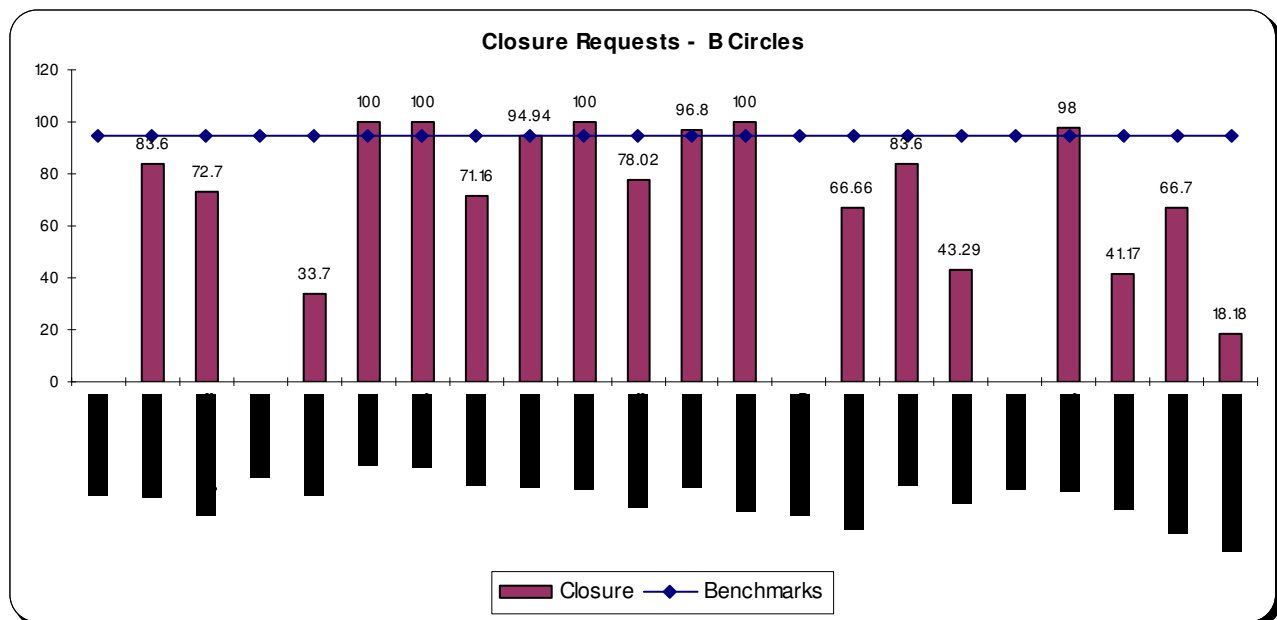
Audit was conducted for 20 operators. Rest 2 operators were not done. 8 operators are not meeting the benchmark parameter. BSNL West Bengal not applicable.



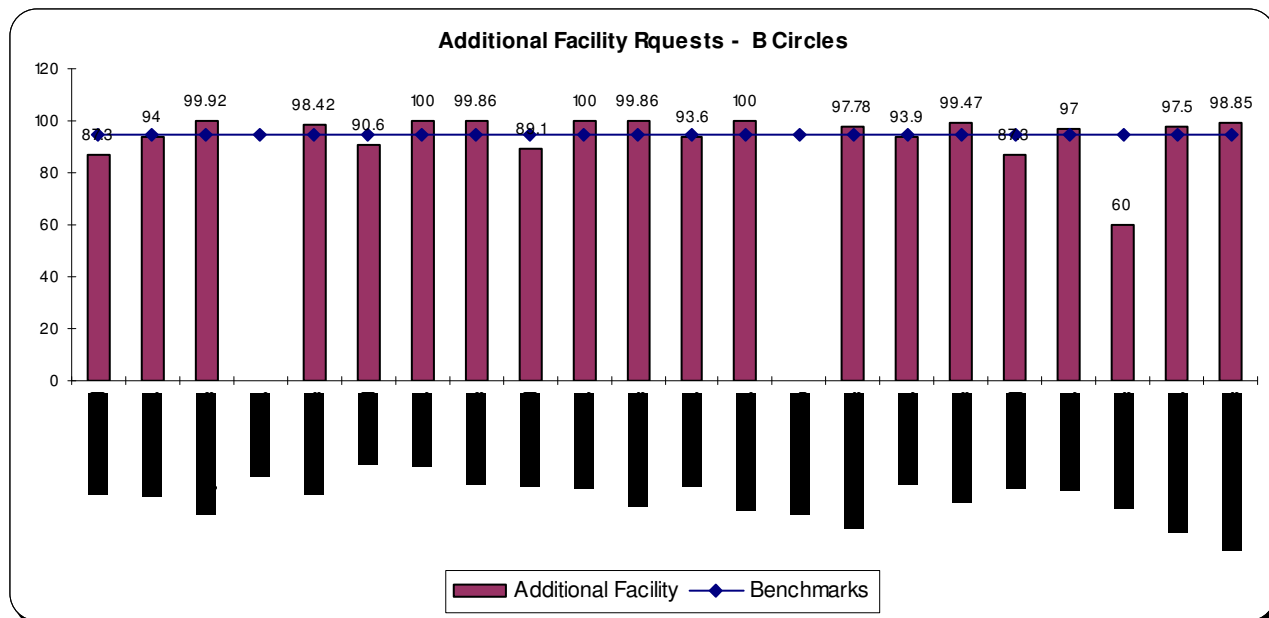
Audit was conducted for 20 operators. Rest 2 operators were not done. 6 operators are not meeting the benchmark parameter.



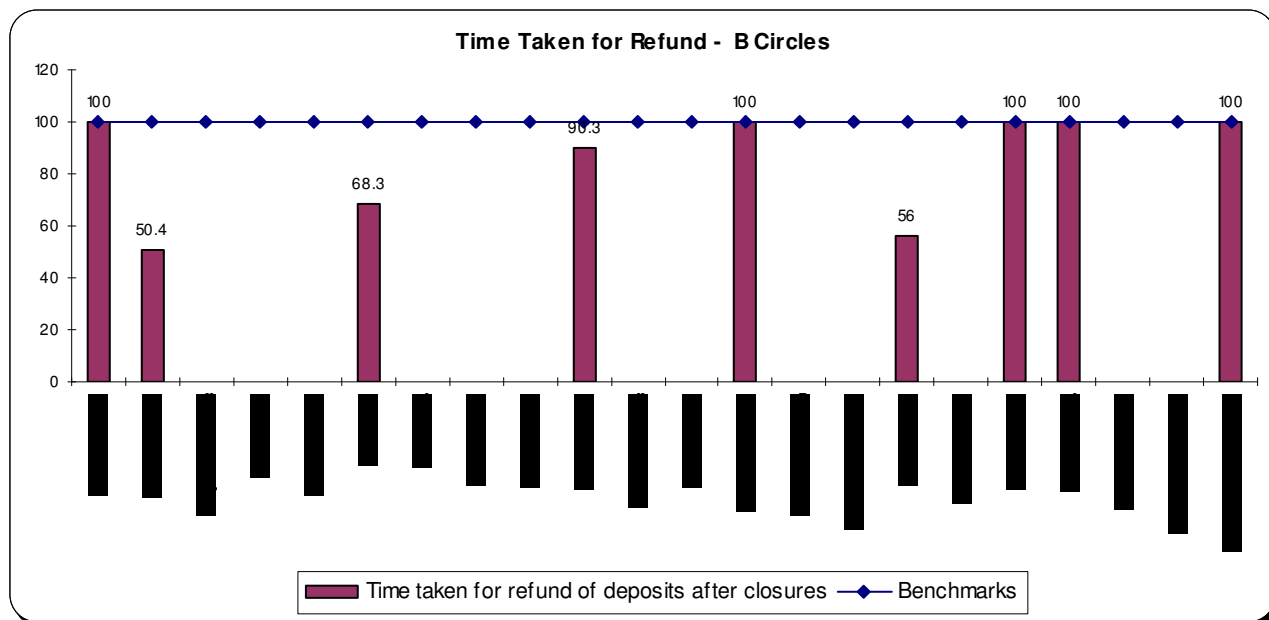
Audit was conducted for 20 operators. Rest 2 operators were not done. 13 operators are not meeting the benchmark parameter.



Audit was conducted for 20 operators. Rest 2 operators were not done. 12 operators are not meeting the benchmark parameter. Data not provided by Airtel UP West. No incidences were observed for Bharti Haryana

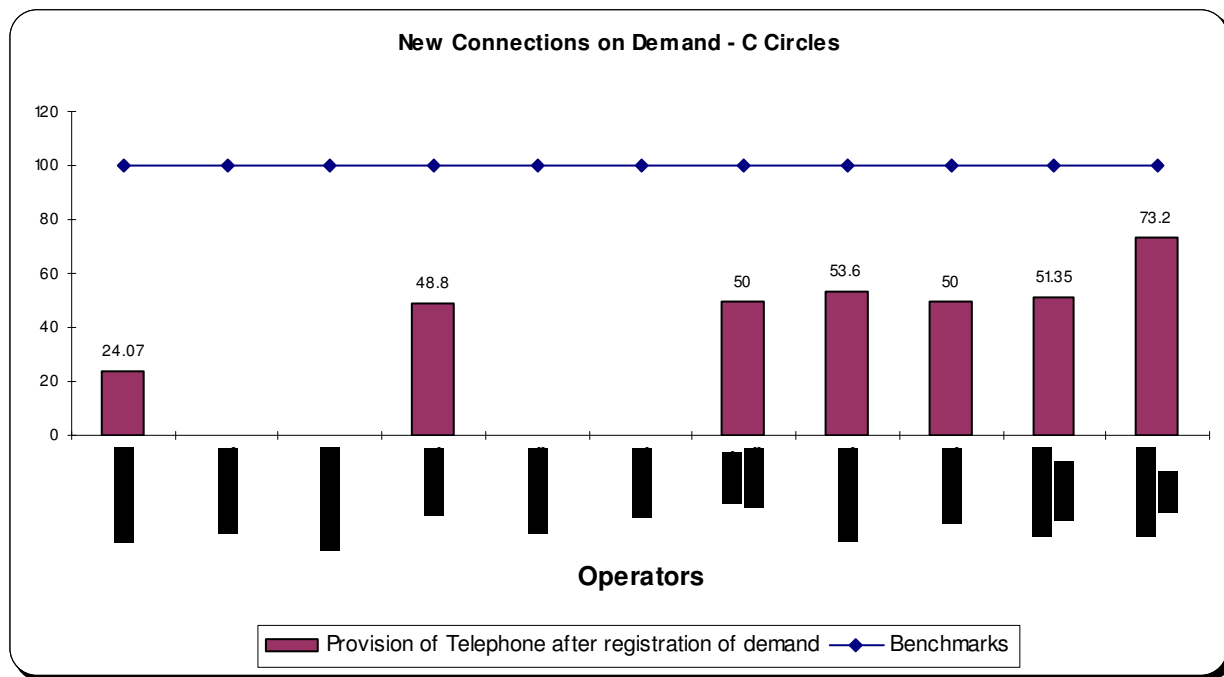


Audit was conducted for 20 operators. Rest 2 operators were not done. 8 operators are not meeting the benchmark parameter.

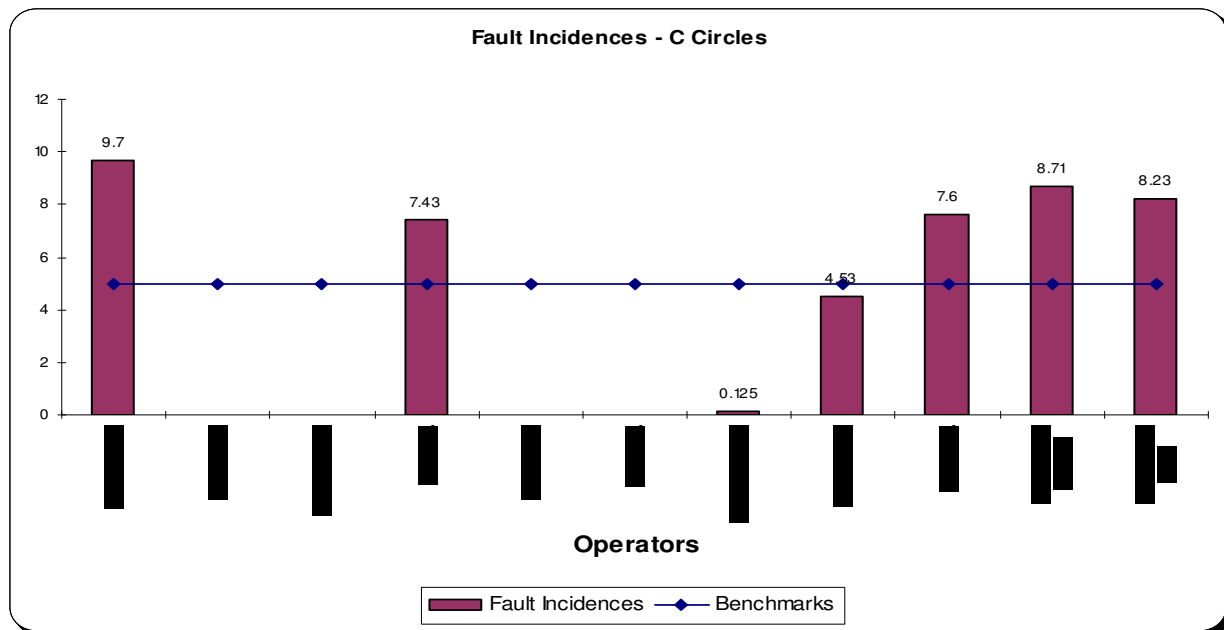


Audit was conducted for 20 operators. Rest 2 operators were not done. 04 operators are not meeting the benchmark parameter. Data not provided by BSNL MP, Airtel Punjab and HFCL Punjab. No incidences were observed in case of Reliance – Haryana, Reliance – Kerala, Reliance – MP, Reliance – Rajasthan, - Reliance UP East, Reliance – UP West, BSNL – West Bengal and Reliance - Punjab.

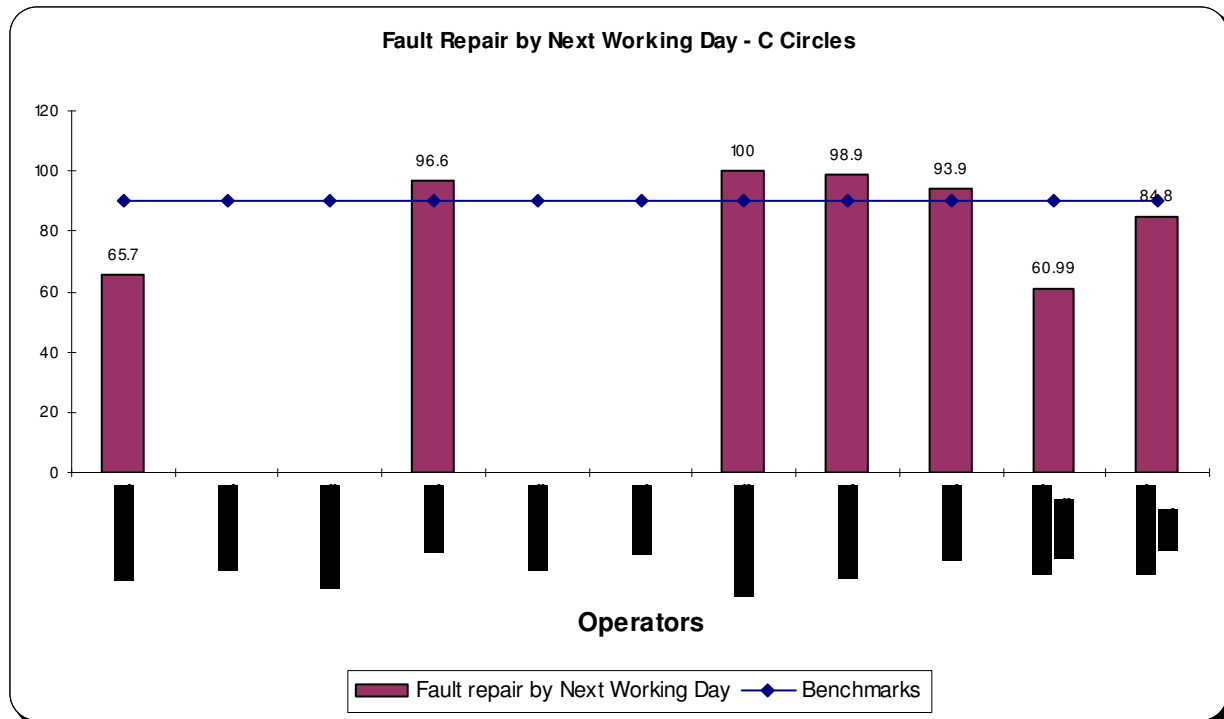
4.2.4 C CIRCLES



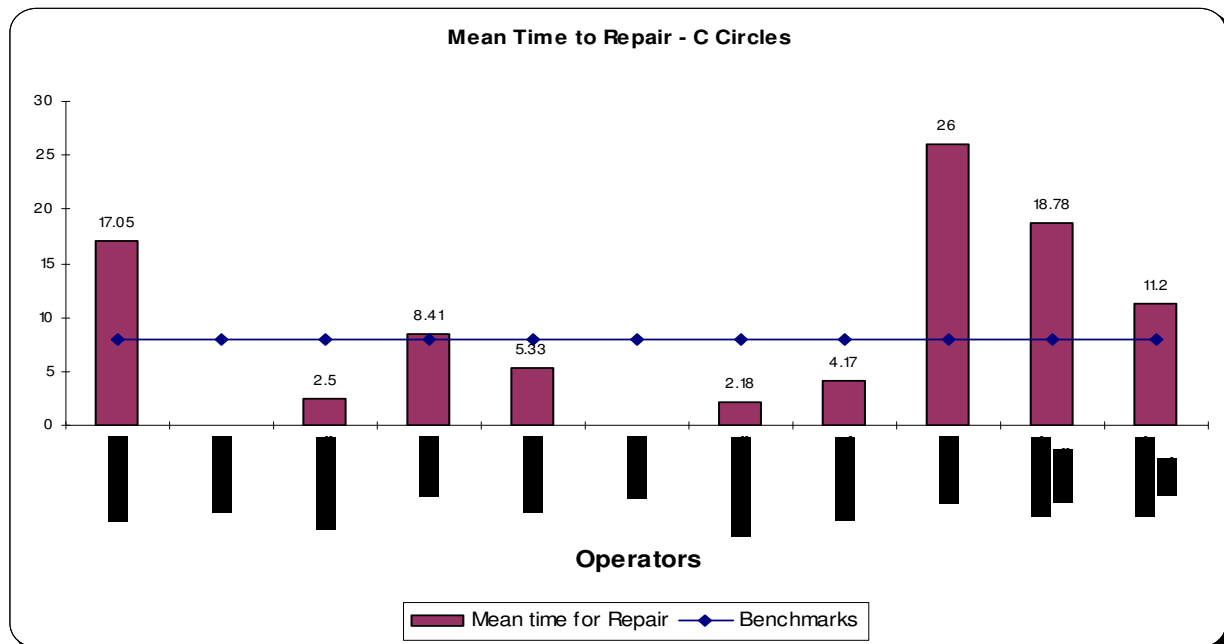
Audit was conducted for 09 operators. Rest 2 operators were not done. 07 operators are not meeting the benchmark parameter. No incidences were observed for Reliance – Bihar and Reliance HP



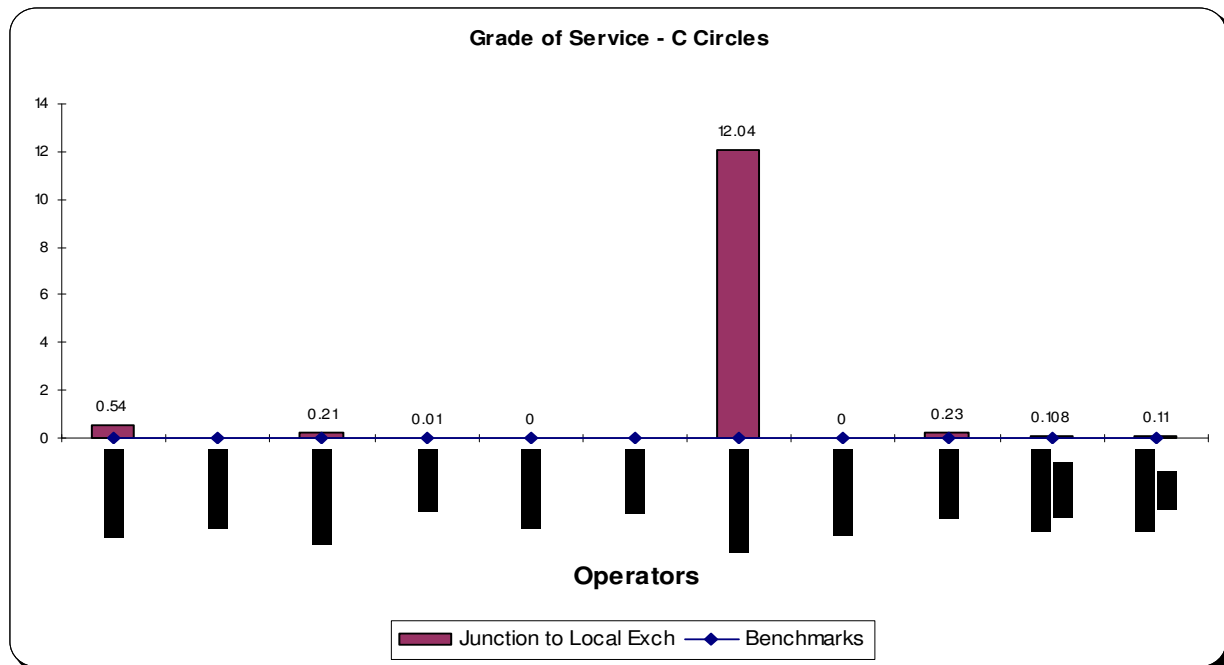
Audit was conducted for 09 operators. Rest 2 operators were not done. 05 operators are not meeting the benchmark parameter. No incidences were reported in case of Reliance – Bihar and Reliance – HP.



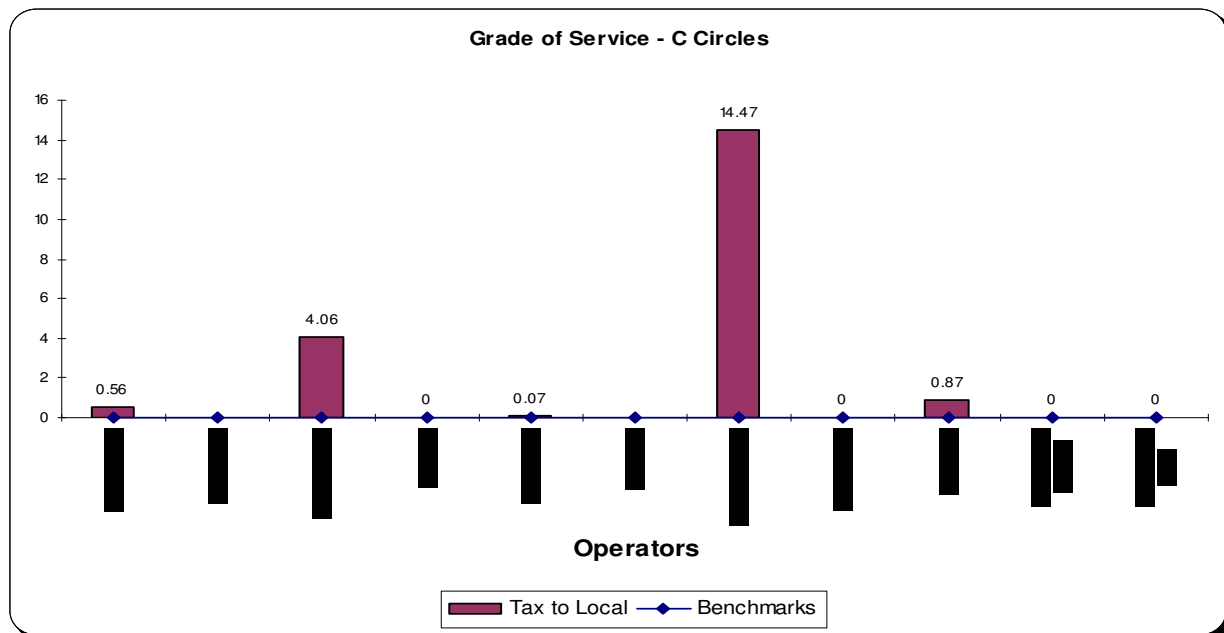
Audit was conducted for 09 operators. Rest 2 operators were not done. 03 operators are not meeting the benchmark parameter. No incidences were reported in case of Reliance – Bihar and Reliance – HP.



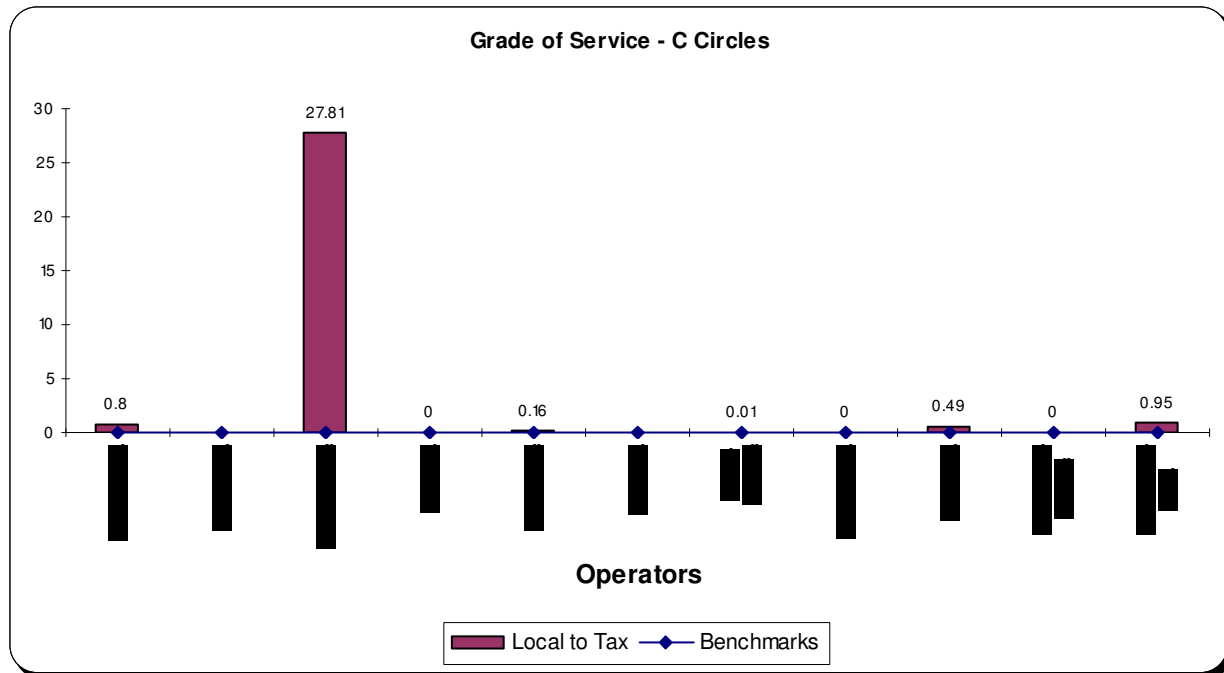
Audit was conducted for 09 operators. Rest 2 operators were not done. 05 operators are not meeting the benchmark parameter.



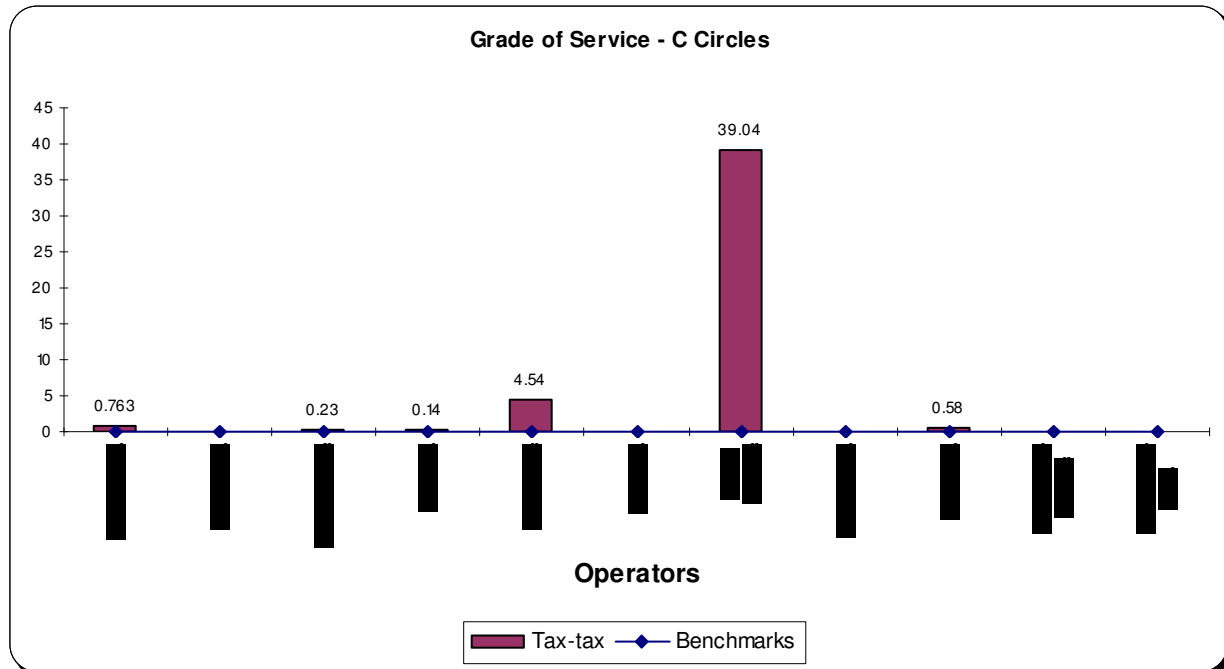
Audit was conducted for 09 operators. Rest 2 operators were not done. 07 operators are not meeting the benchmark parameter.



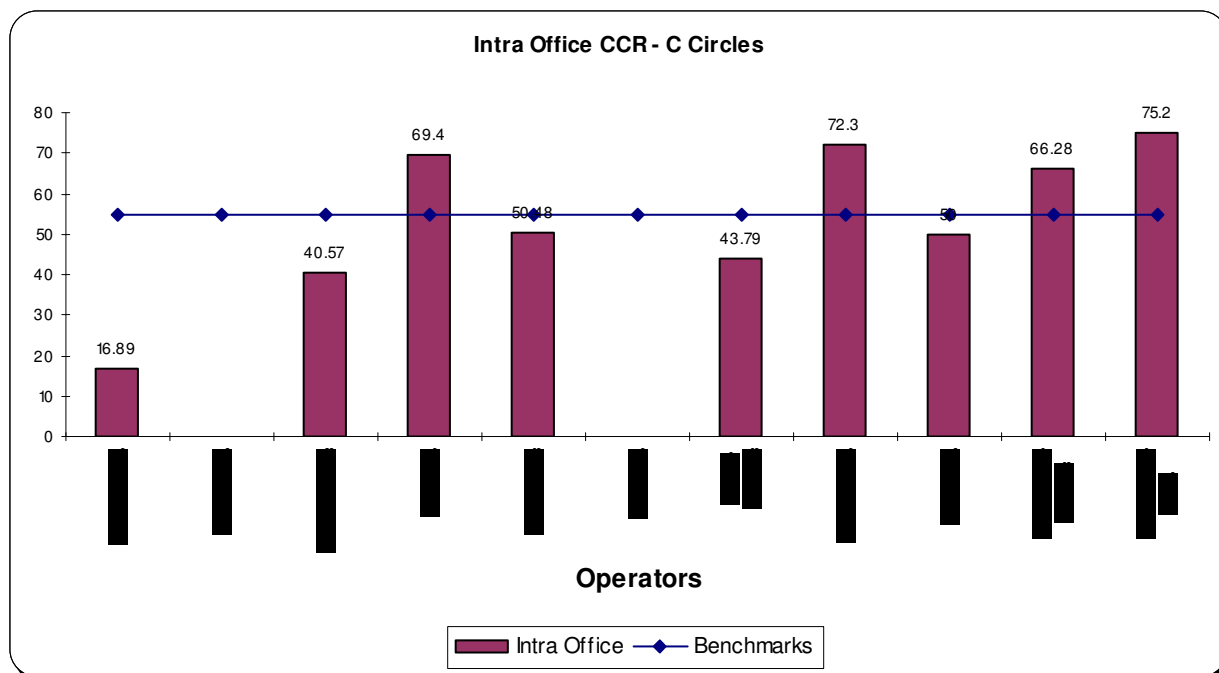
Audit was conducted for 09 operators. Rest 2 operators were not done. 05 operators are not meeting the benchmark parameter.



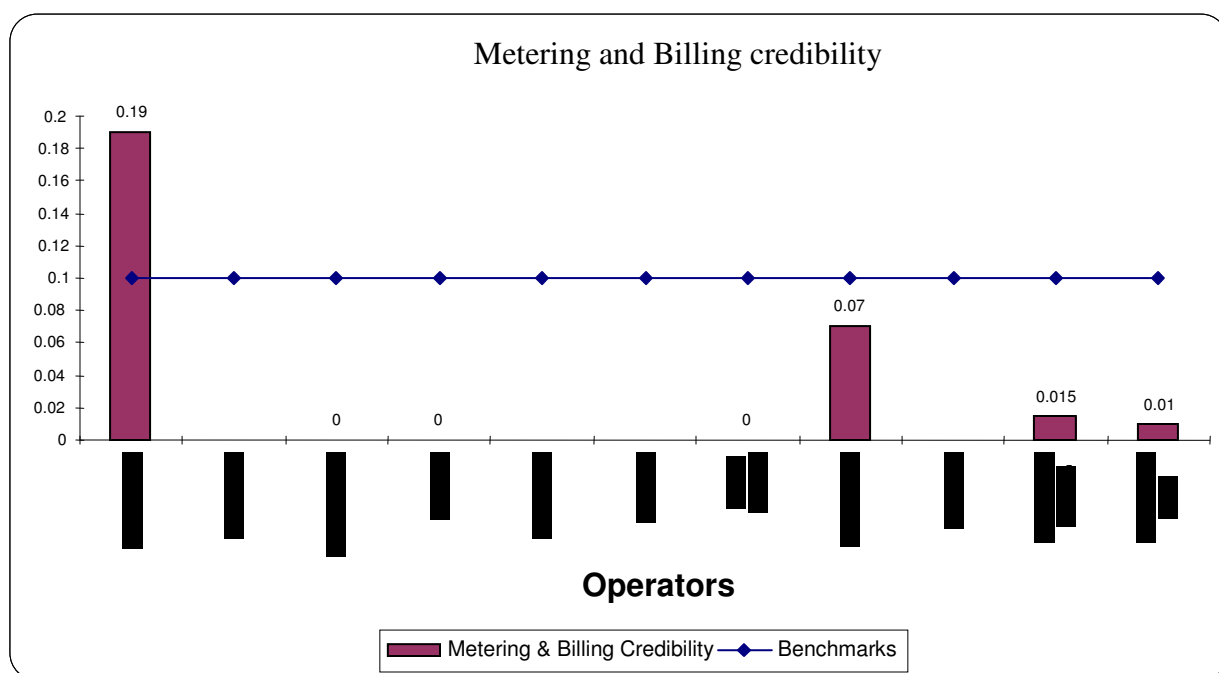
Audit was conducted for 09 operators. Rest 2 operators were not done. 06 operators are not meeting the benchmark parameter.



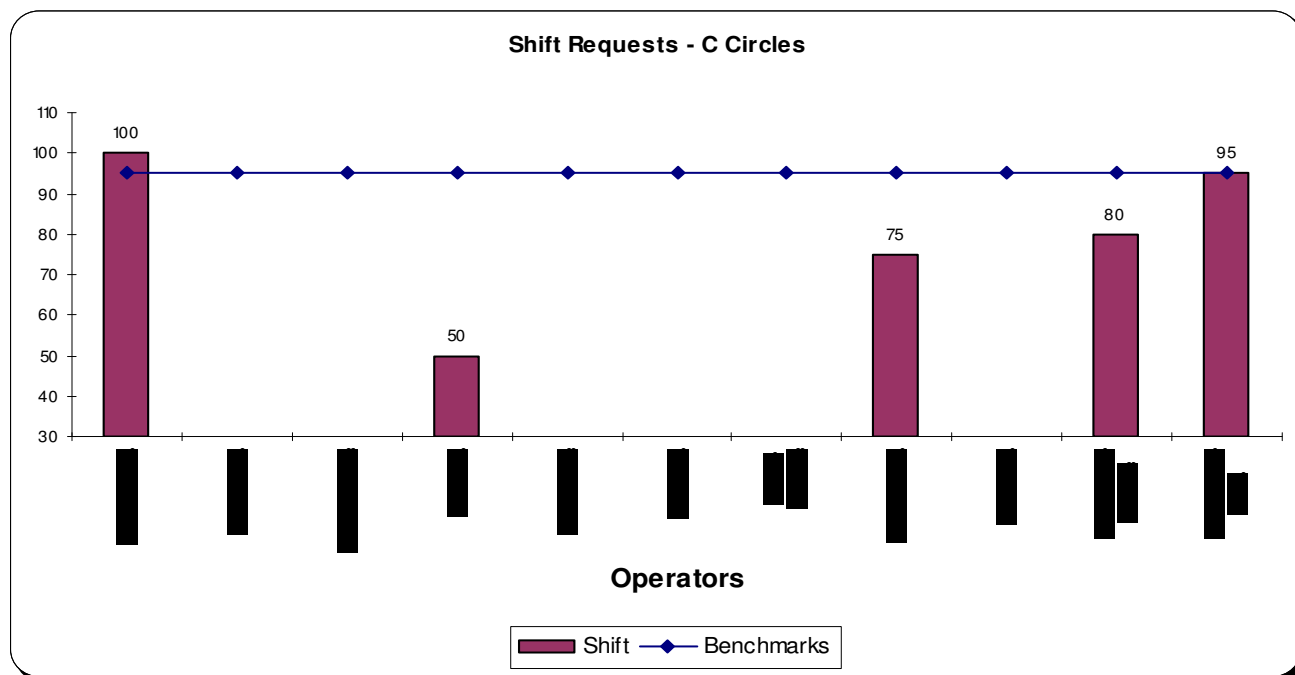
Audit was conducted for 09 operators. Rest 2 operators were not done. 06 operators are not meeting the benchmark parameter. Data not provided by Orissa BSNL and Chattisgarh Reliance and BSNL.



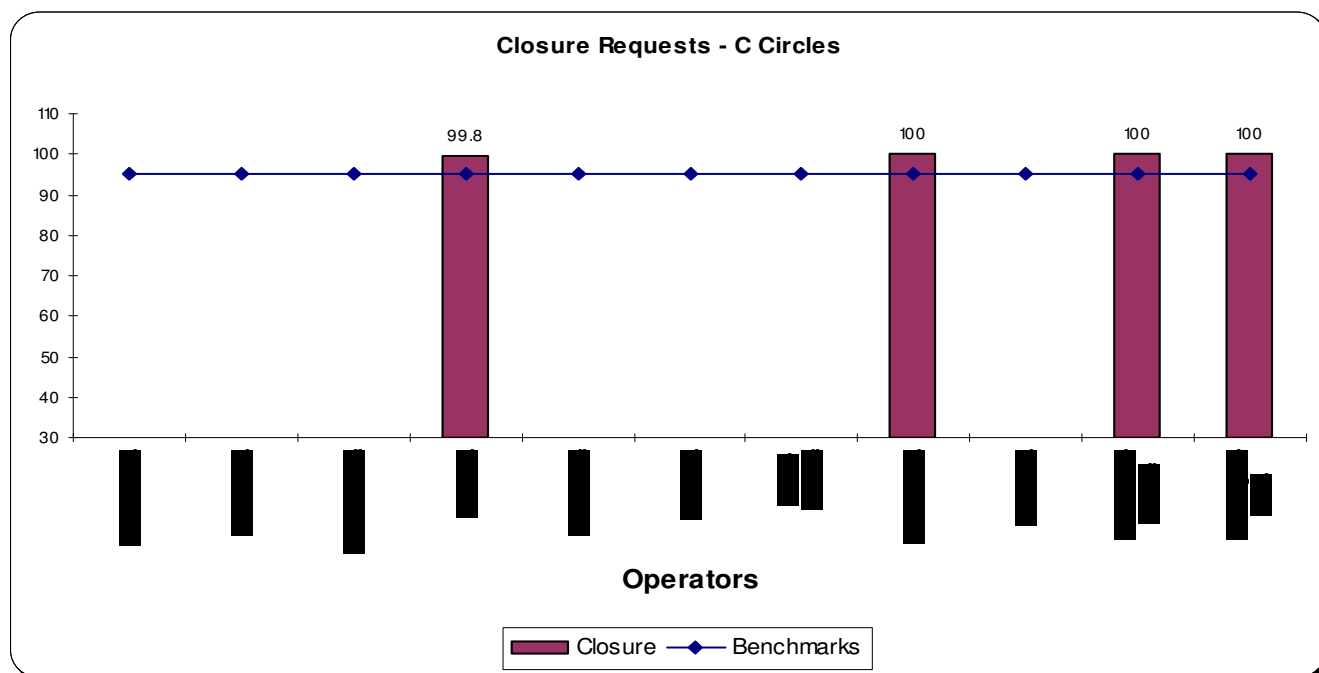
Audit was conducted for 09 operators. Rest 2 operators were not done. 05 operators are not meeting the benchmark parameter.



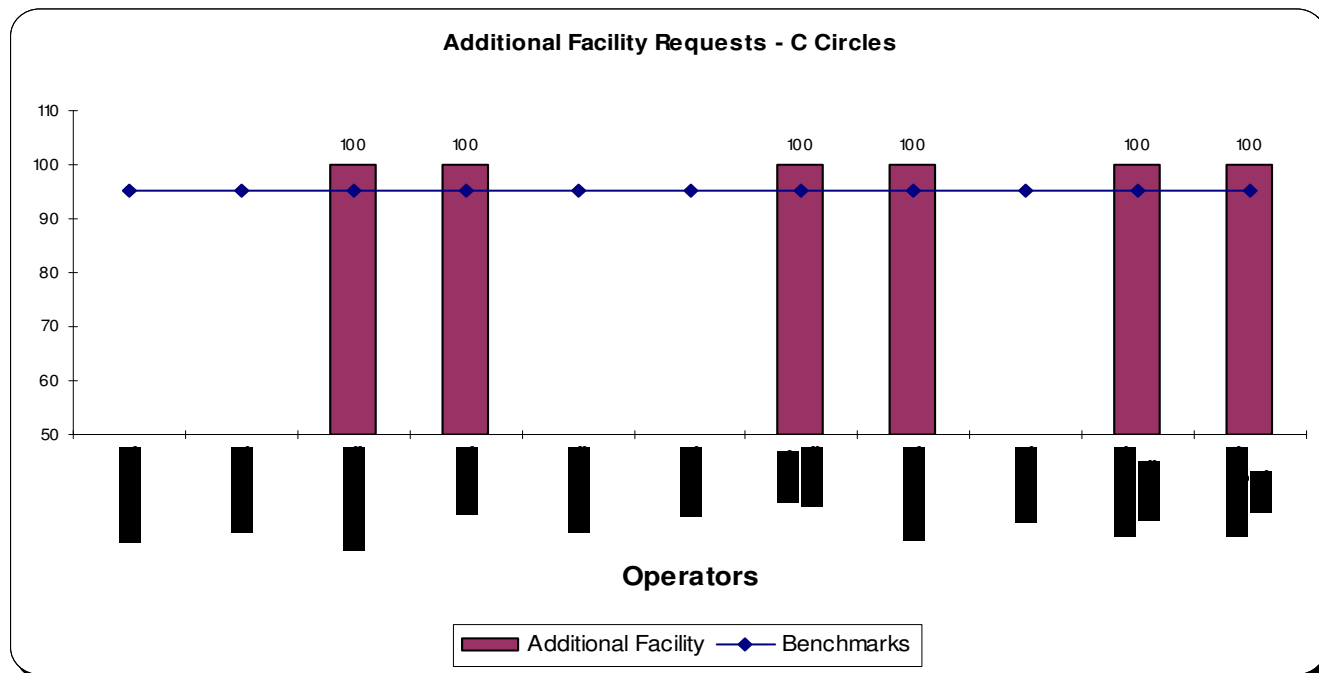
Audit was conducted for 09 operators. Rest 2 operators were not done. 01 operator is not meeting the benchmark parameter. Data not provided by BSNL J&K. No incidences were reported in case of Reliance – HP.



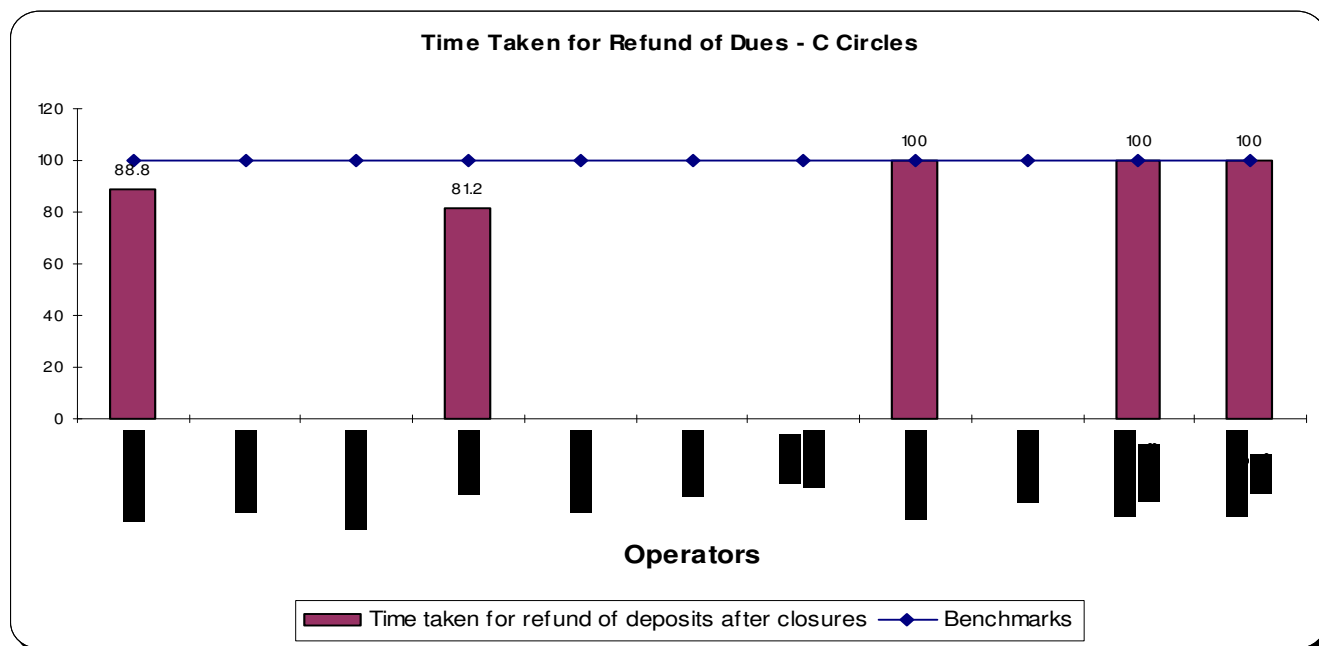
Audit was conducted for 08 operators. Rest 2 operators were not done. 03 operators are not meeting the benchmark parameter. Data not provided by HP Reliance and J&K BSNL. No incidences were reported in case of Reliance – Bihar.



Audit was conducted for 09 operators. Rest 2 operators were not done. All Operators are meeting the Bench Mark Parameters. Data not provided by Assam BSNL, J&K BSNL & HP Reliance. No incidences were observed in case of Bihar Reliance and Orissa Reliance.



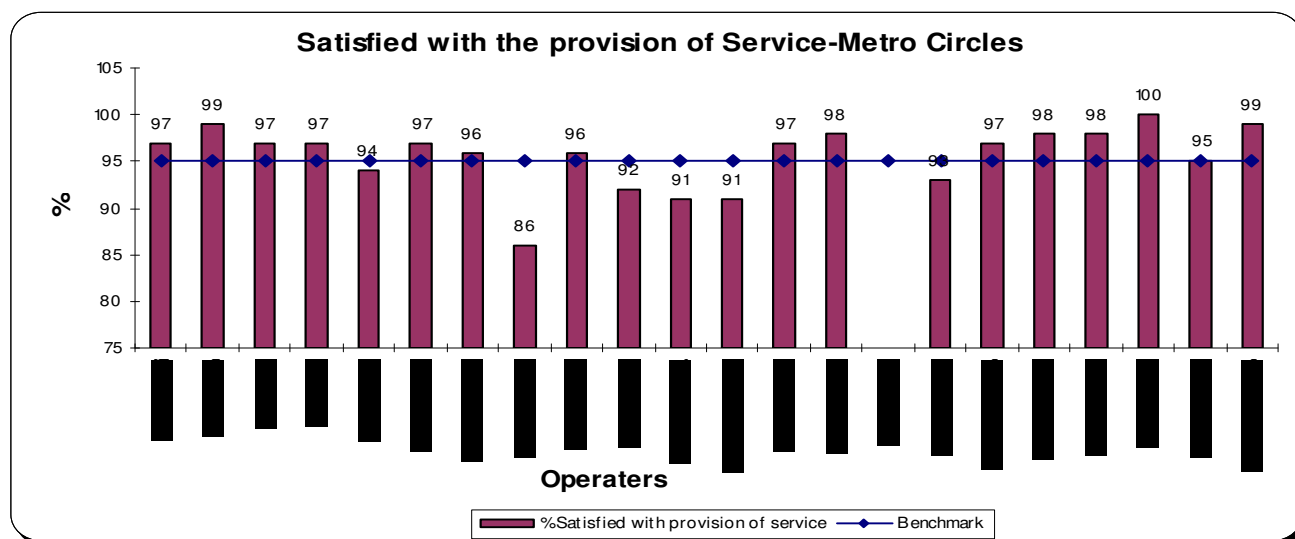
Audit was conducted for 09 operators. Rest 2 operators were not done. 06 Operators are meeting the Bench Mark Parameters. Data not provided by Assam BSNL, HP Reliance and J&K BSNL.



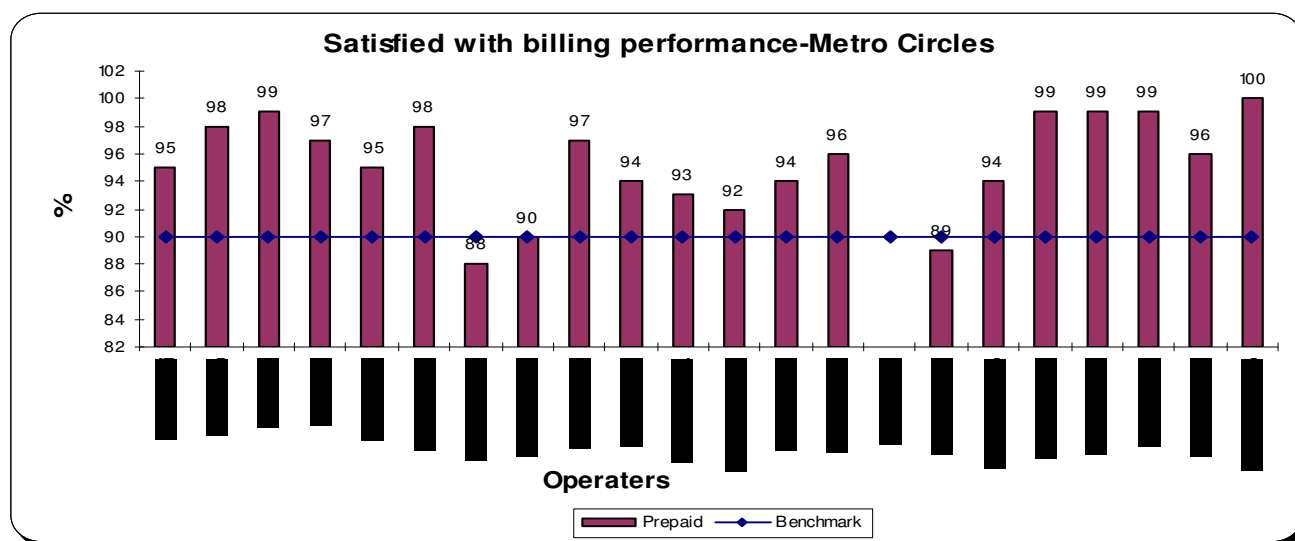
Audit was conducted for 09 operators. Rest 2 operators were not done. 02 operators are not meeting the benchmark parameter. Data not provided by J&K BSNL. No incidences were reported for Reliance – Bihar, Reliance HP and Reliance – Orissa.

4.3 CSS – CELLULAR

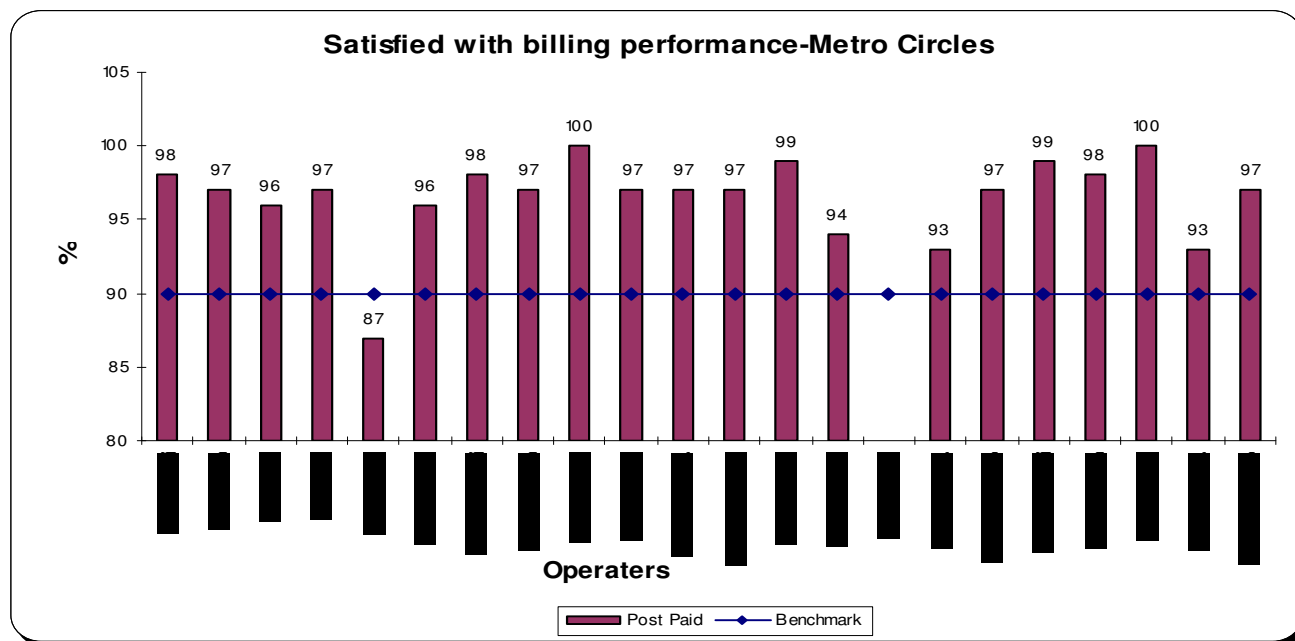
4.3.1 METRO CIRCLES



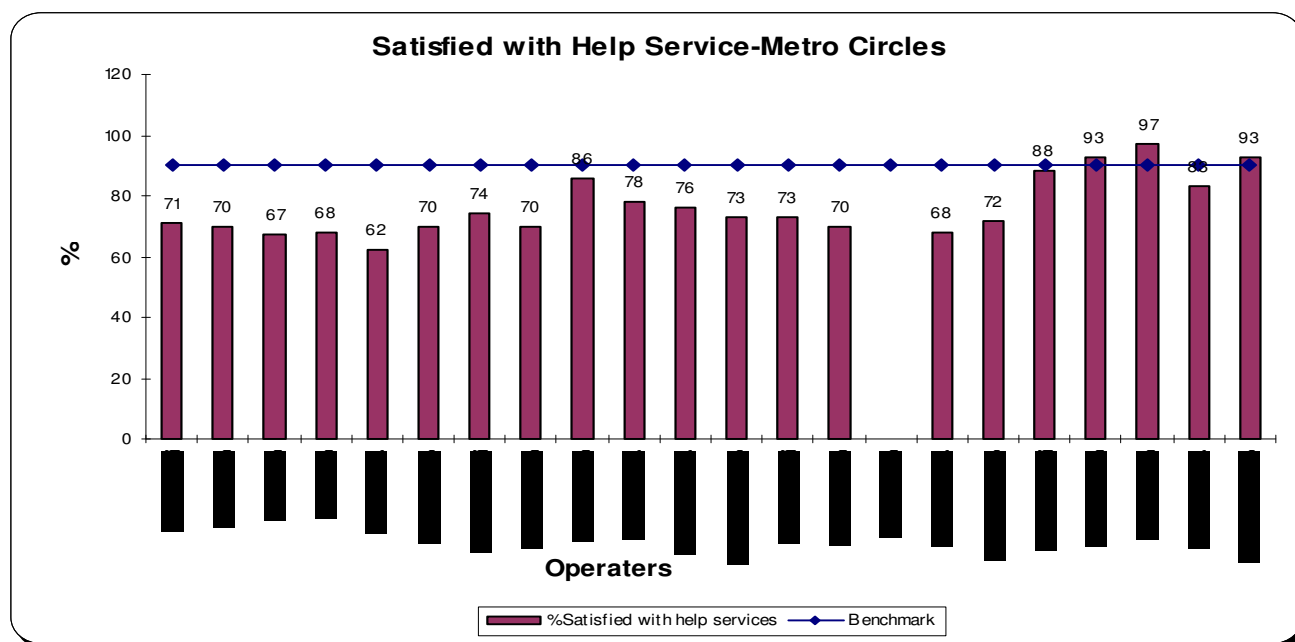
Survey was conducted for all 21 operators. Out of these, 6 Operators were found not meeting the Criteria. Kolkata Tata not done.



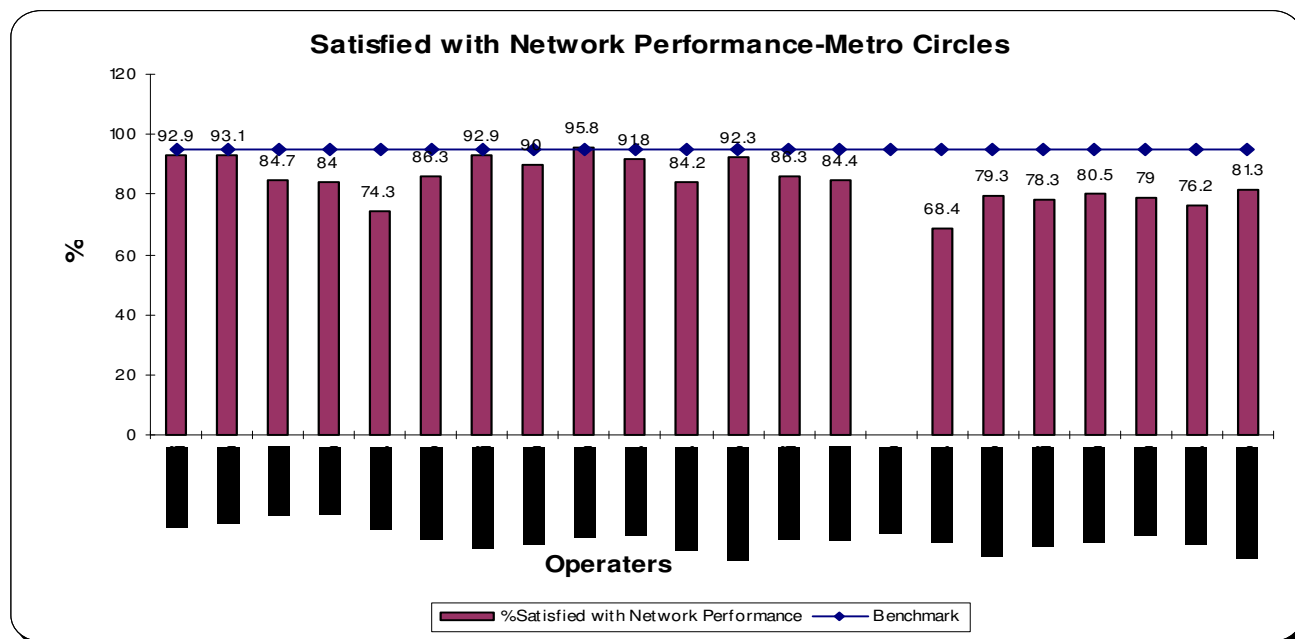
Survey was conducted for all 21 operators. Out of these, 2 Operators were found not meeting the Criteria. Kolkata Tata not done.



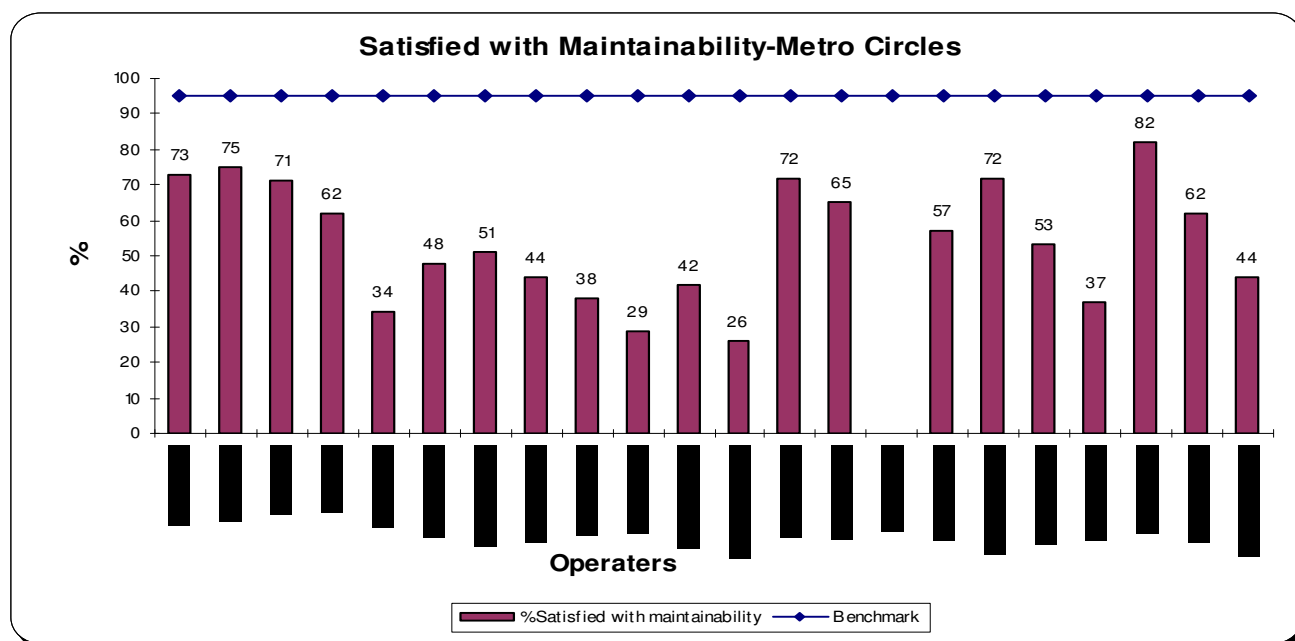
Survey was conducted for all 21 operators. Out of these, 1 Operators were found not meeting the Criteria. Kolkata Tata not done.



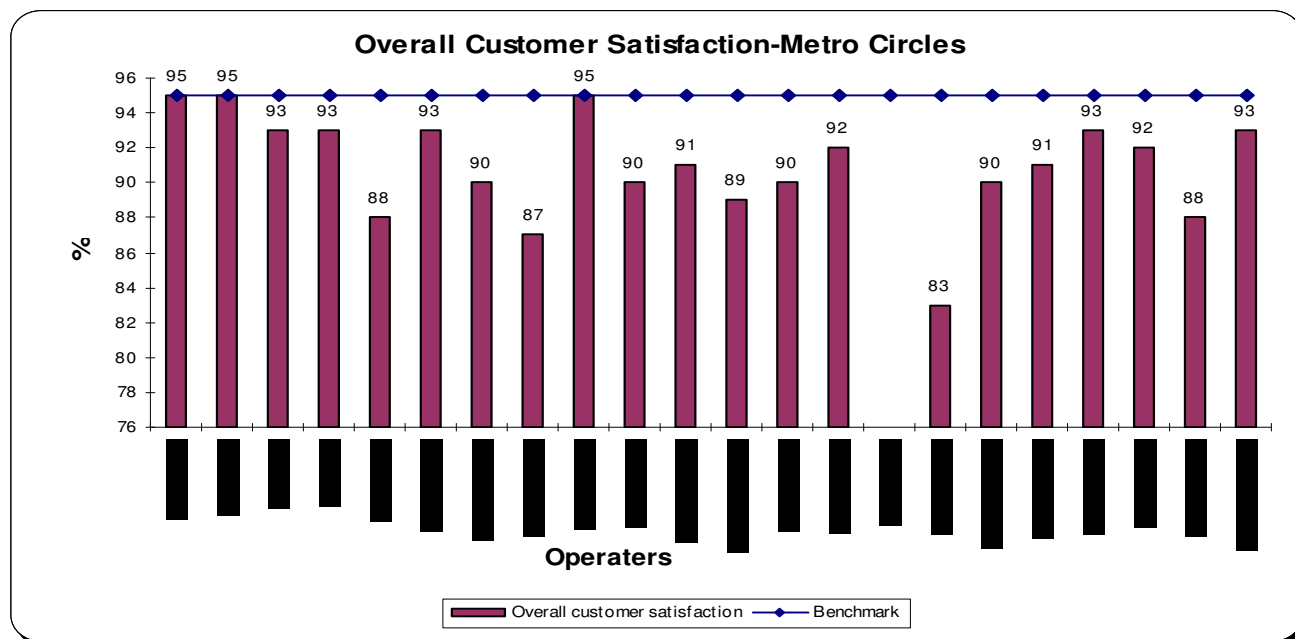
Survey was conducted for all 21 operators. Out of these, 18 Operators were found not meeting the Criteria. Kolkata Tata not done.



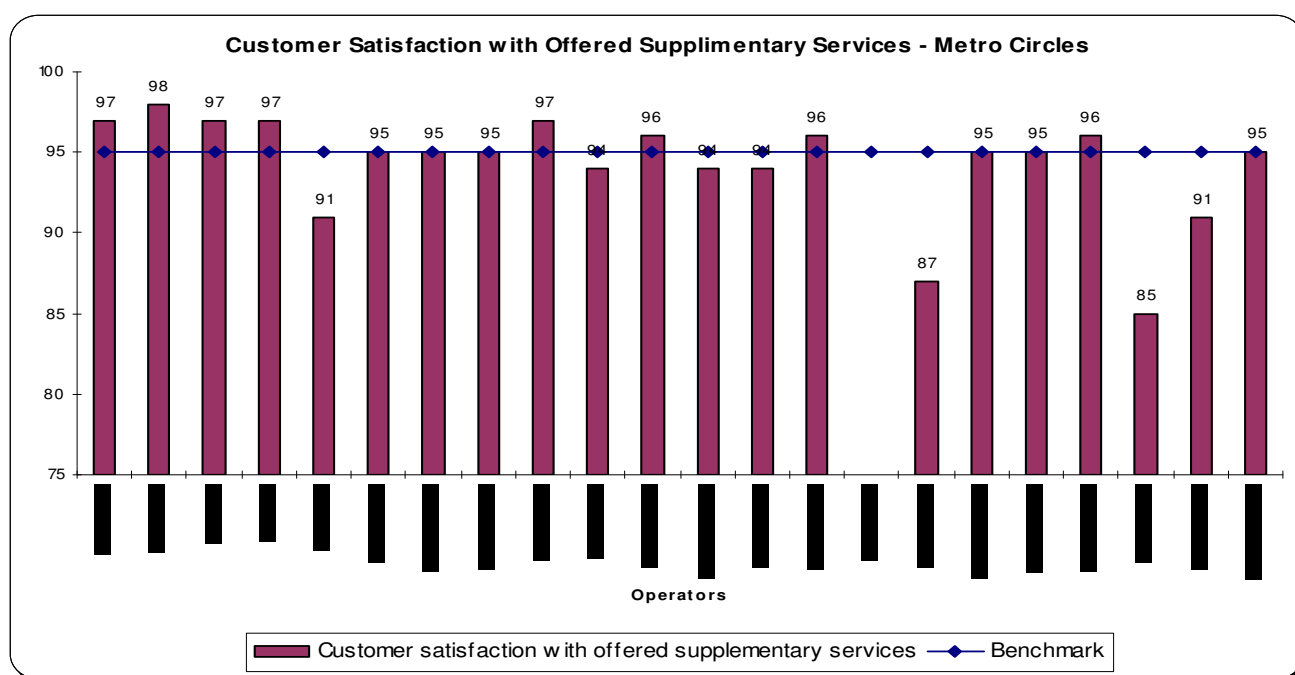
Survey was conducted for all 21 operators. Out of these, 20 Operators were found not meeting the Criteria. Kolkata Tata not done.



Survey was conducted for all 21 operators. Out of these, none of the Operators were found meeting the Criteria. Kolkata Tata not done.

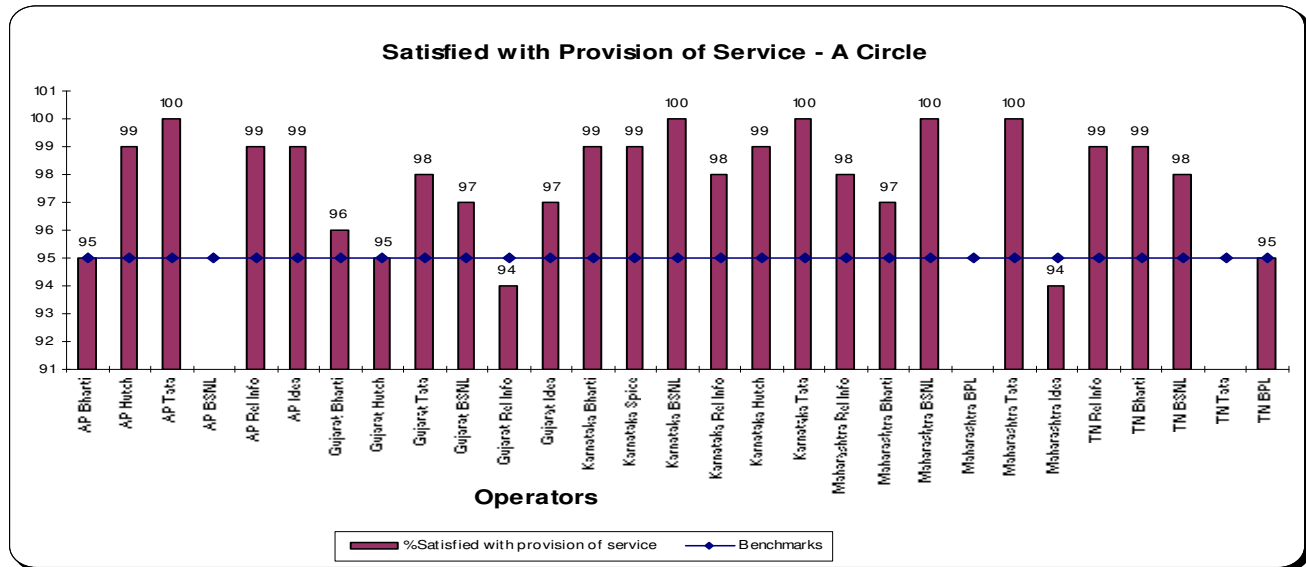


Survey was conducted for all 21 operators. Out of these, 18 Operators were found not meeting the Criteria. Kolkata Tata not done.

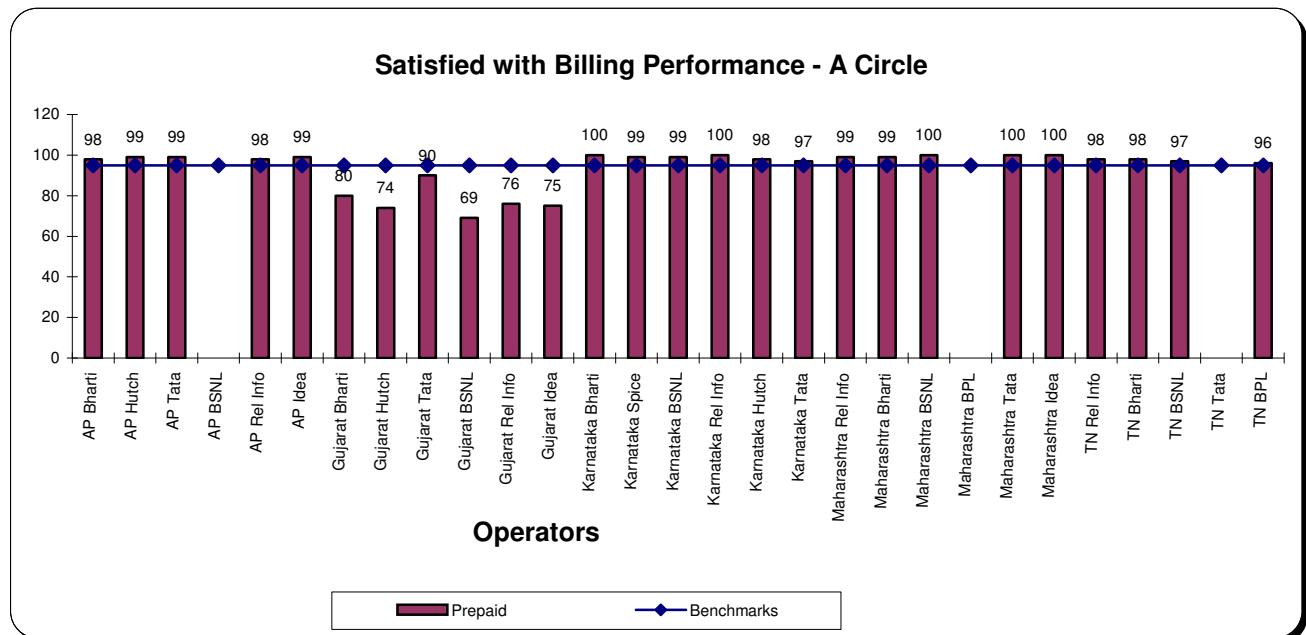


Survey was conducted for all 21 operators. Out of these, 7 Operators were found not meeting the Criteria. Kolkata Tata not done.

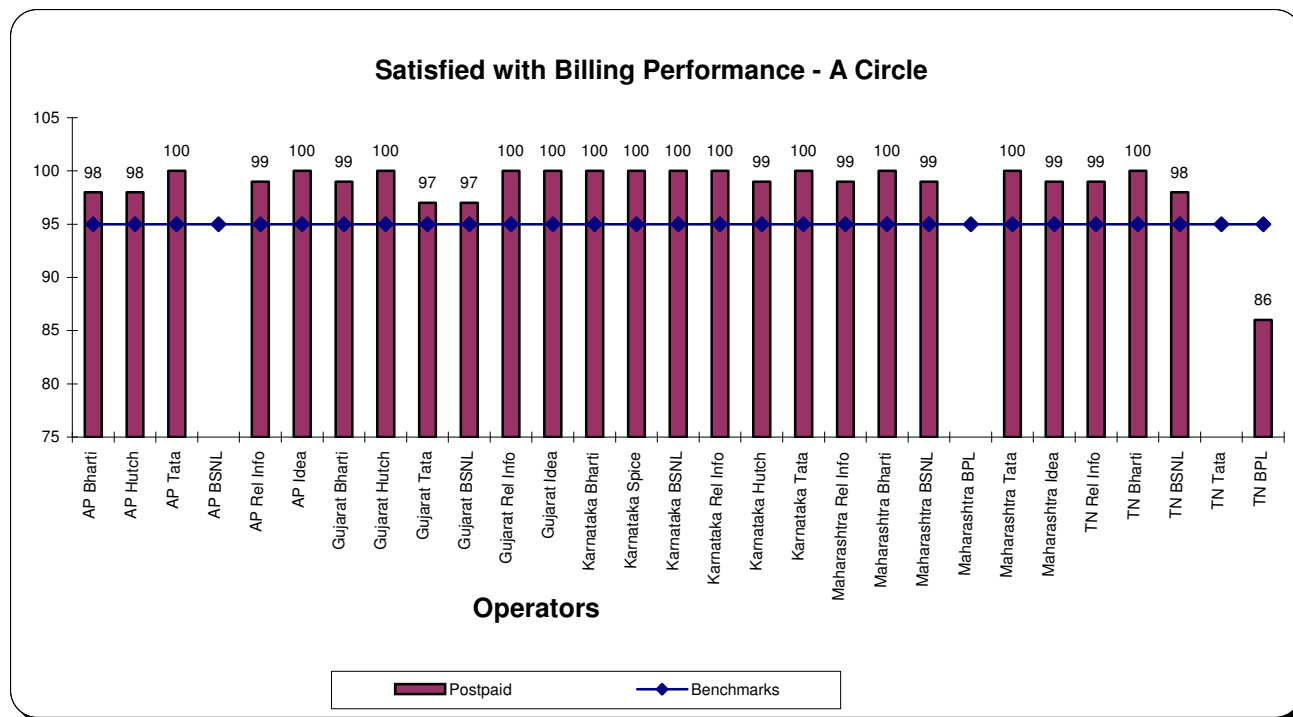
4.3.2 A CIRCLES



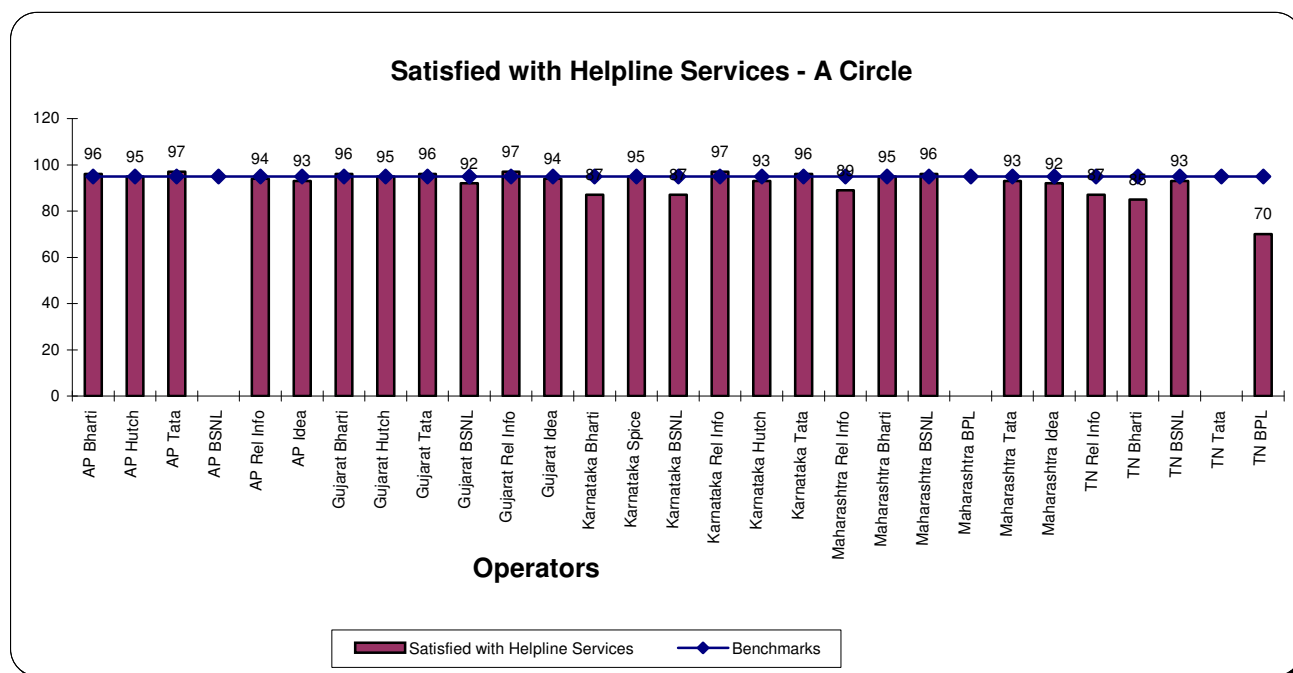
Survey was conducted for 26 operators. Out of these, 2 Operators were found not meeting the Criteria. AP BSNL, Maharashtra BPL and TN Tata Not done



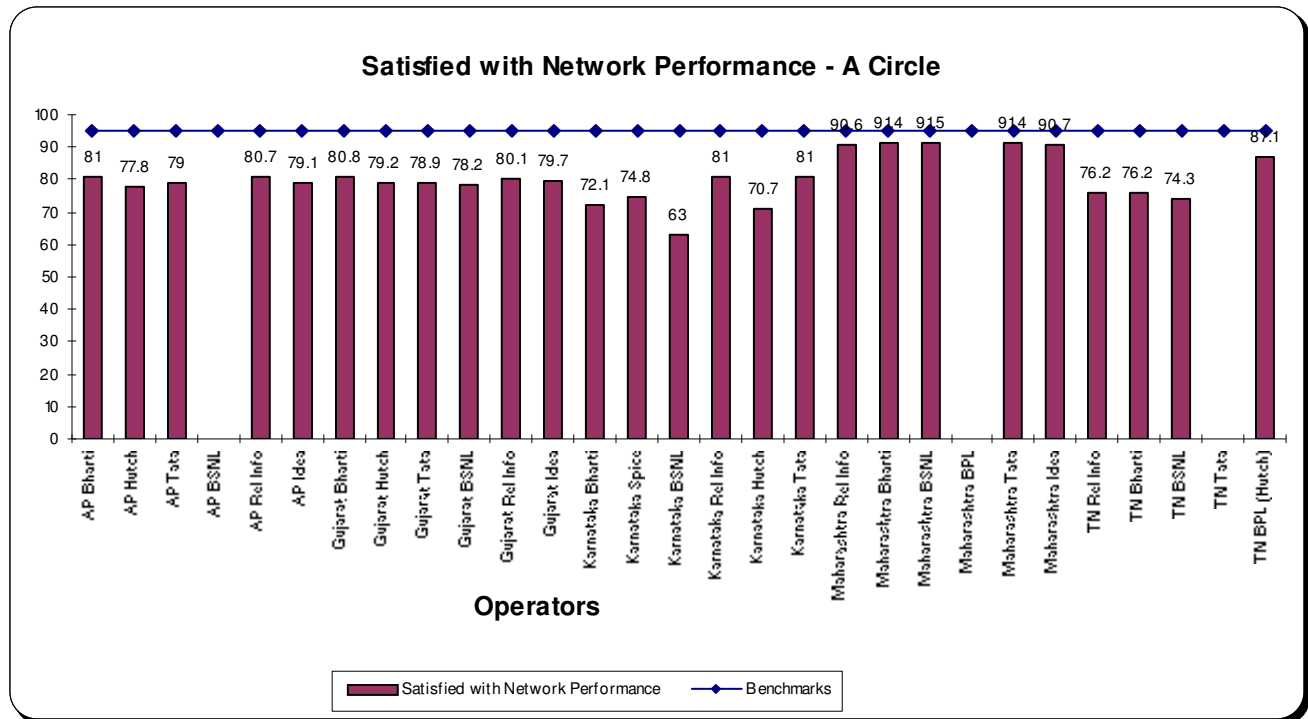
Survey was conducted for 26 operators. Out of these, 5 Operators were found not meeting the Criteria. AP BSNL, Maharashtra BPL and TN Tata Not done



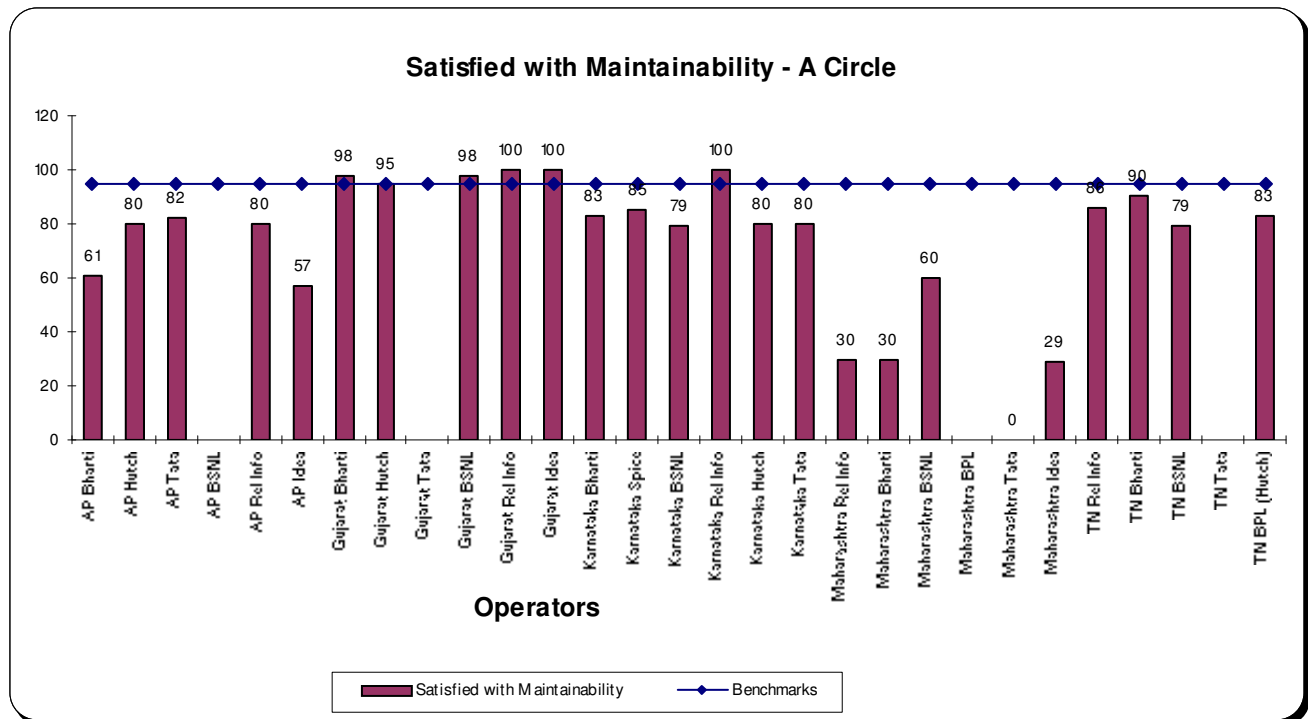
Survey was conducted for 26 operators. Out of these, 1 Operator was found not meeting the Criteria. AP BSNL, Maharashtra BPL and TN Tata Not done



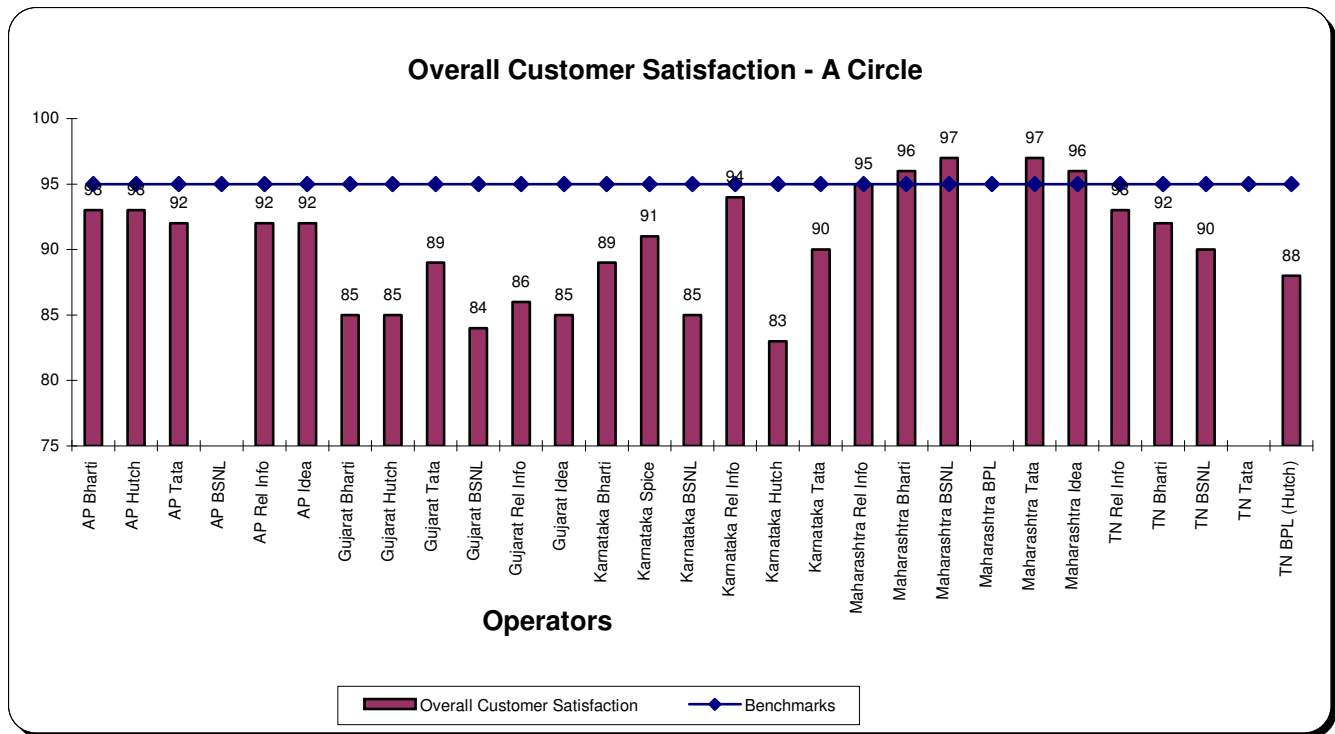
Survey was conducted for 26 operators. Out of these, 6 Operators were found not meeting the Criteria. AP BSNL, Maharashtra BPL and TN Tata Not done



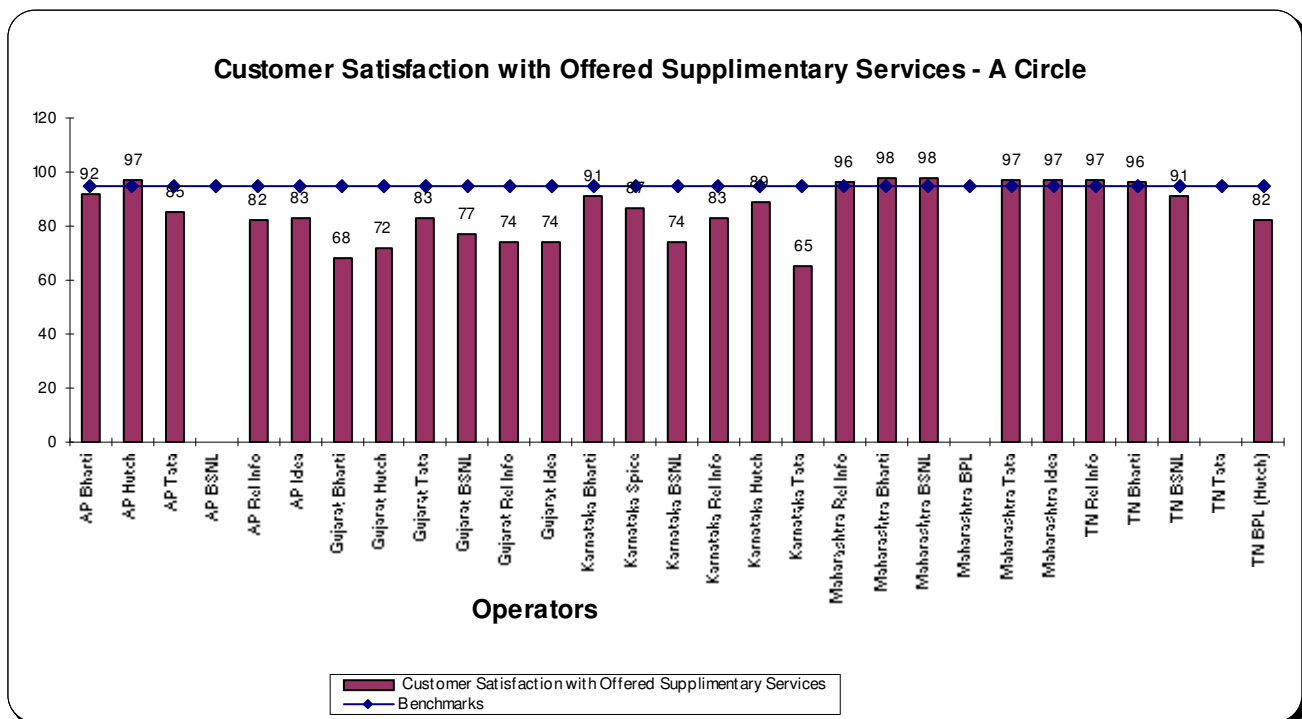
Survey was conducted for 26 operators. Out of these, none of the operators were found meeting the Criteria. AP BSNL, Maharashtra BPL and TN Tata Not done



Survey was conducted for 25 operators. Out of these, 19 Operators were found not meeting the Criteria. AP BSNL, Maharashtra BPL, Gujarat Tata and TN Tata Not done

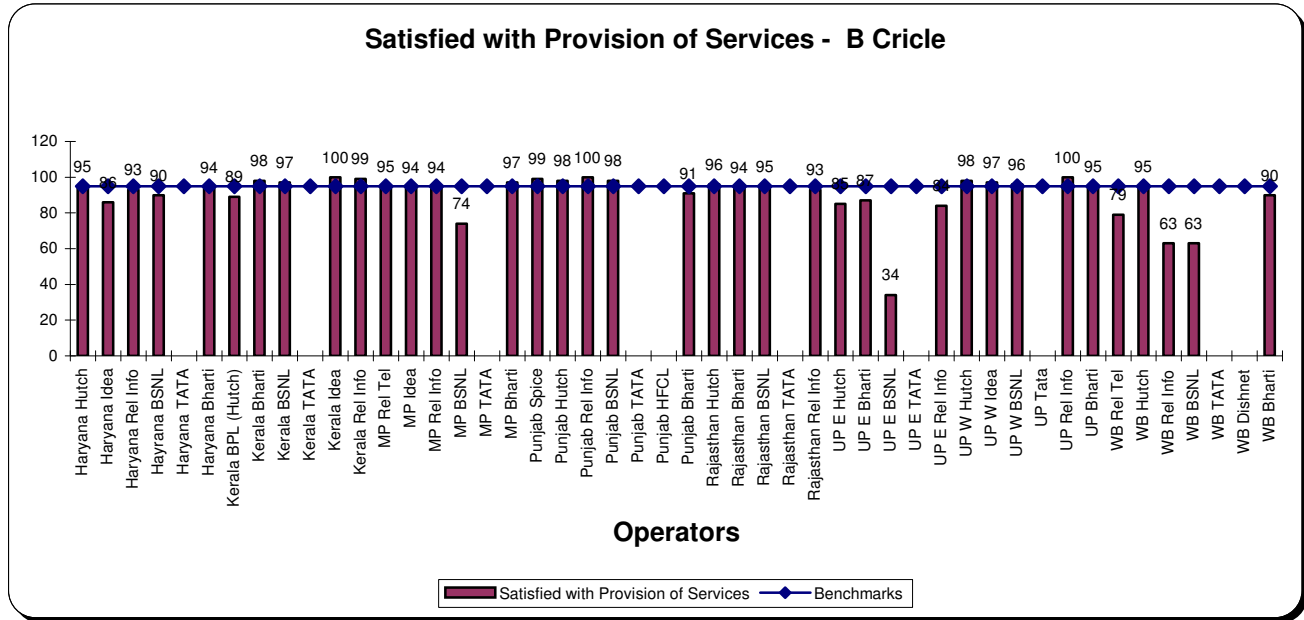


Survey was conducted for 26 operators. Out of these, 21 Operators were found not meeting the Criteria. AP BSNL, Maharashtra BPL and TN Tata Not done

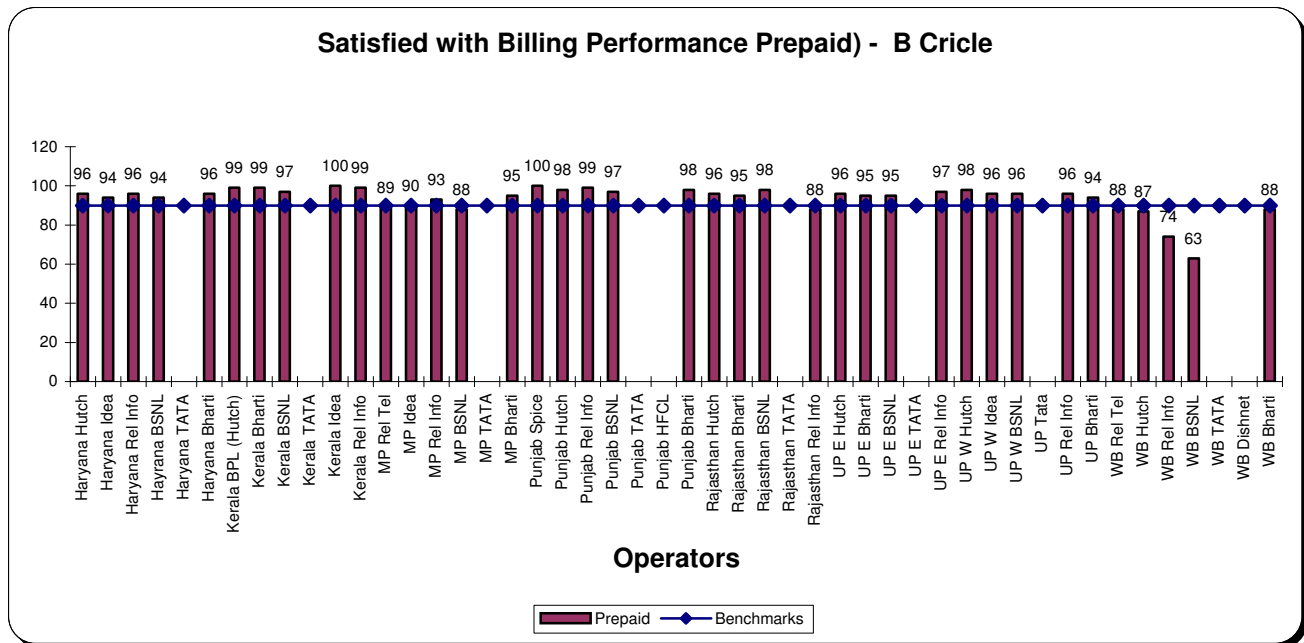


Survey was conducted for 26 operators. Out of these, 18 Operators were found not meeting the Criteria. AP BSNL, Maharashtra BPL and TN Tata Not done

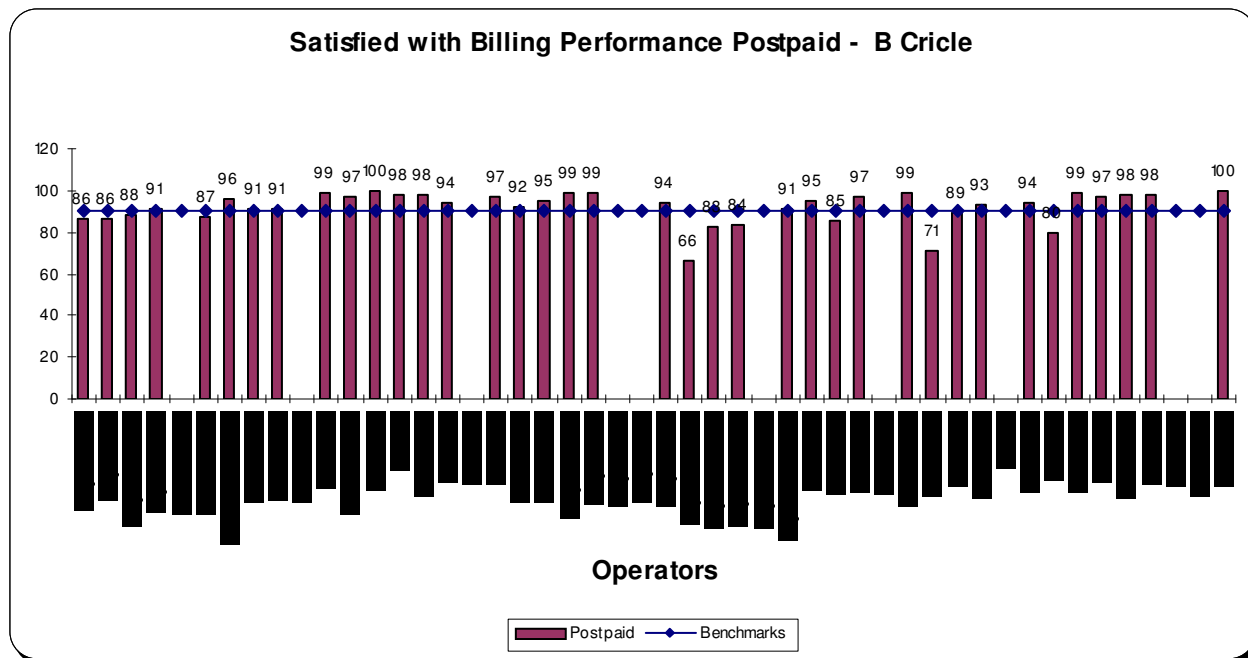
4.3.3 B Circle



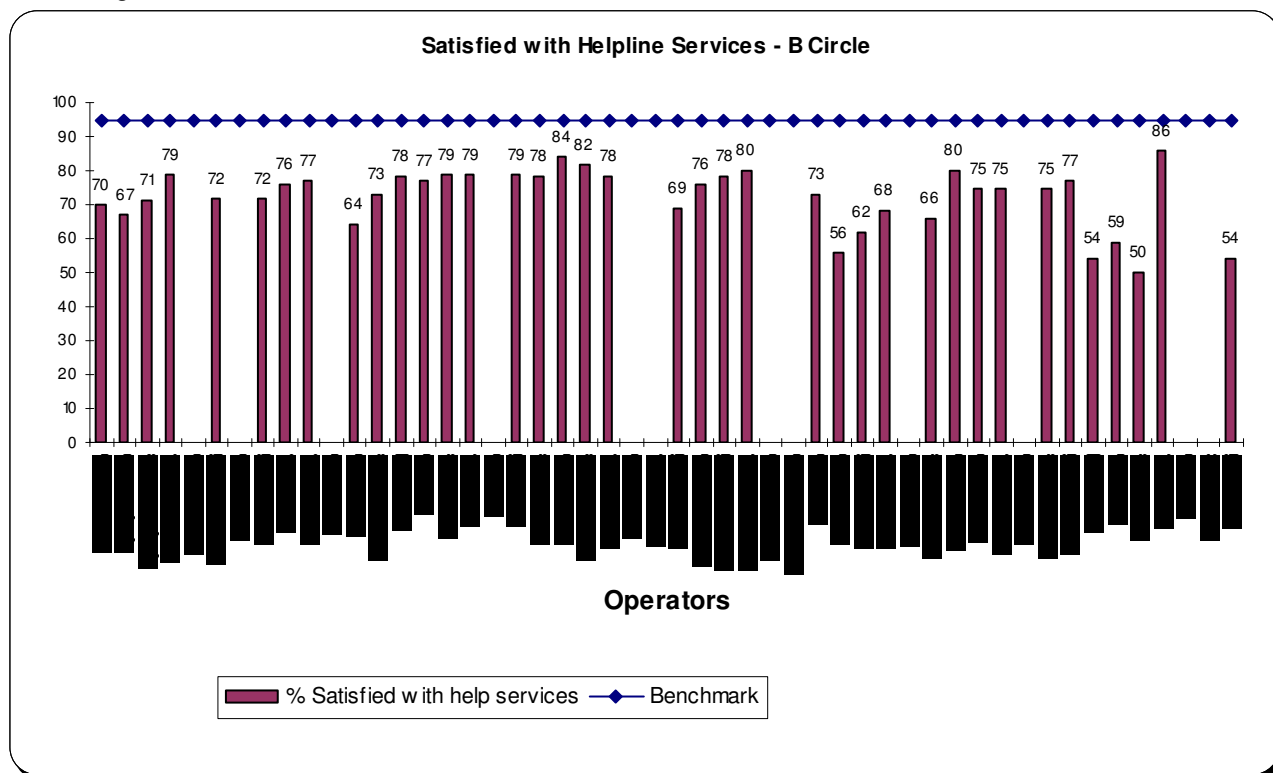
Survey was conducted for 38 operators. Out of these, 19 Operators were found not meeting the Criteria. Haryana TATA, Kerala TATA, MP TATA, Punjab HFCL & TATA, Rajasthan TATA, UP E TATA, UP W TATA, West Bengal TATA and Dishnet were not covered.



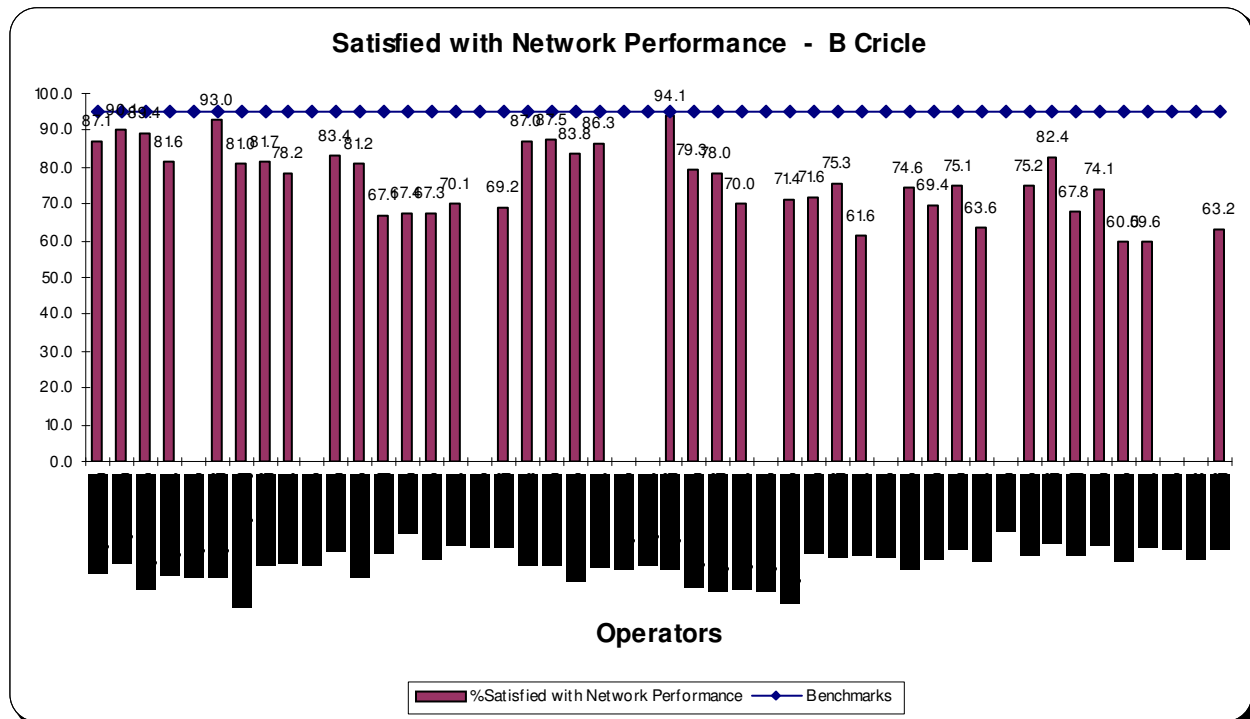
Survey was conducted for 38 operators. Out of these, 8 Operators were found not meeting the Criteria. Haryana TATA, Kerala TATA, MP TATA, Punjab HFCL & TATA, Rajasthan TATA, UP E TATA, UP W TATA, West Bengal TATA and Dishnet were not covered.



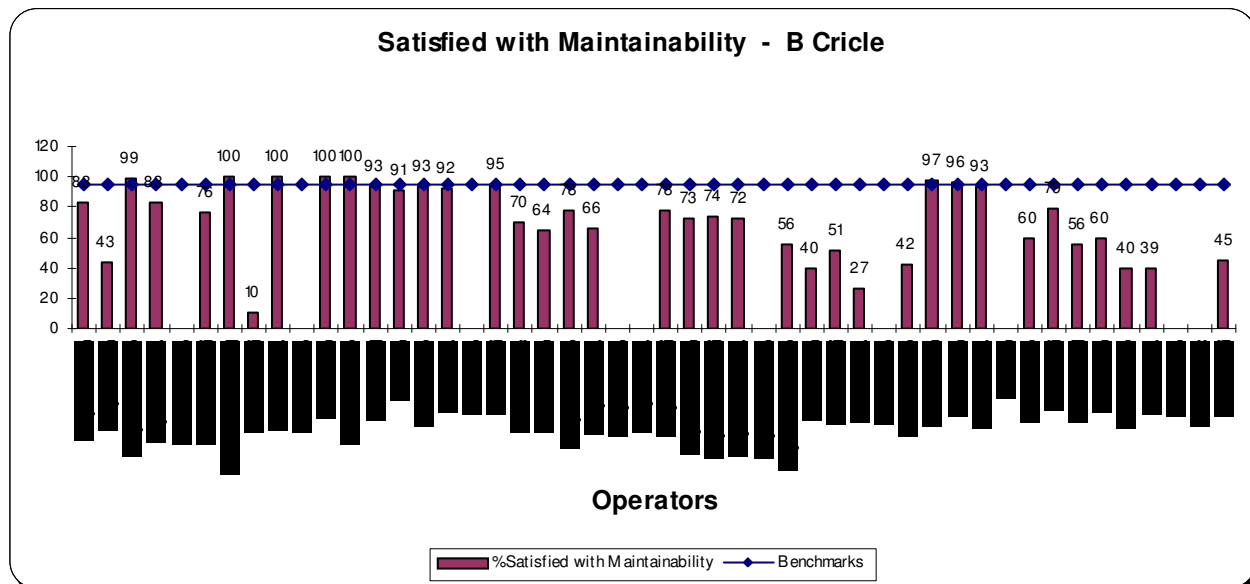
Survey was conducted for 38 operators. Out of these, 11 Operators were found not meeting the Criteria. Haryana TATA, Kerala TATA, MP TATA, Punjab HFCL & TATA, Rajasthan TATA, UP E TATA, UP W TATA , West Bengal TATA and Dishnet were not covered.



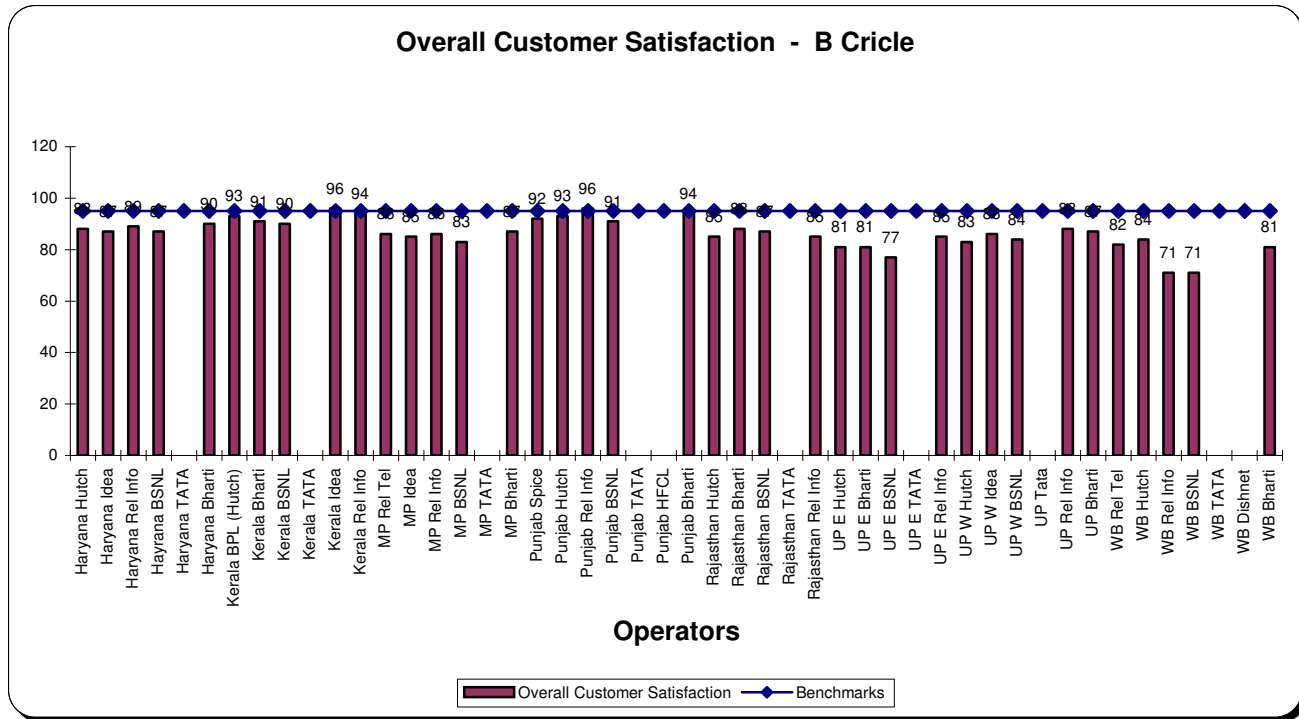
Survey was conducted for 38 operators. None of the Operators were found meeting the Criteria. Haryana TATA, Kerala TATA, MP TATA, Punjab HFCL & TATA, Rajasthan TATA, UP E TATA, UP W TATA , West Bengal TATA and Dishnet were not covered.



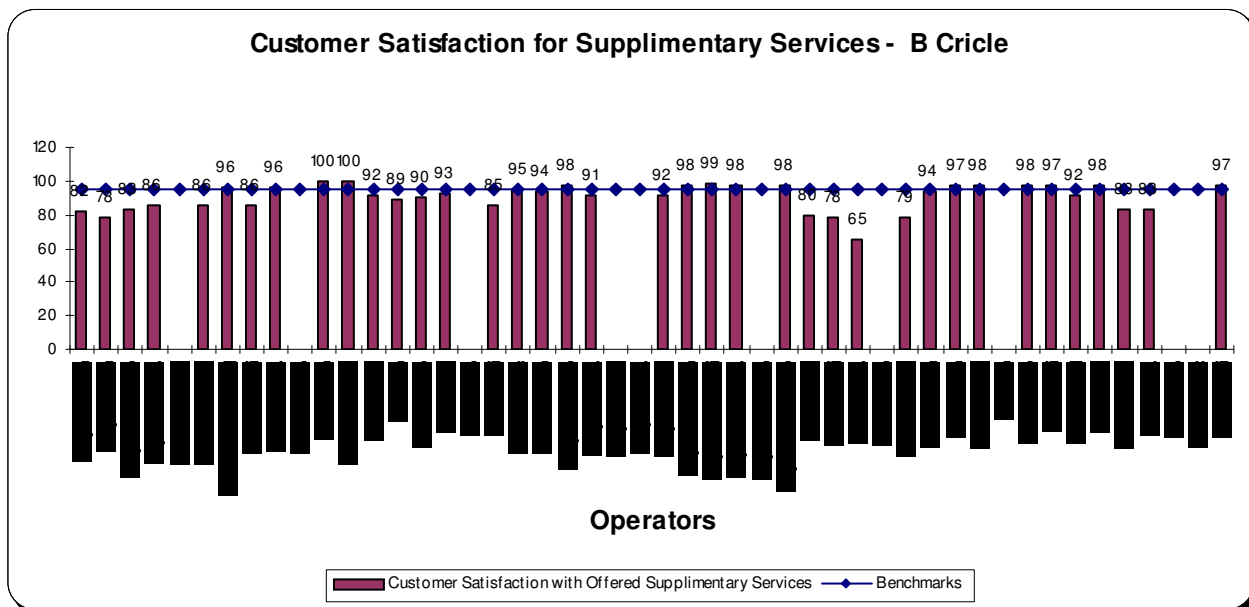
Survey was conducted for 38 operators. None of the Operators were found meeting the Criteria. Haryana TATA, Kerala TATA, MP TATA, Punjab HFCL & TATA, Rajasthan TATA, UP E TATA, UP W TATA , West Bengal TATA and Dishnet were not covered.



Survey was conducted for 38 operators. Out of these, 30 Operators were found not meeting the Criteria. Haryana TATA, Kerala TATA, MP TATA, Punjab HFCL & TATA, Rajasthan TATA, UP E TATA, UP W TATA , West Bengal TATA and Dishnet were not covered.

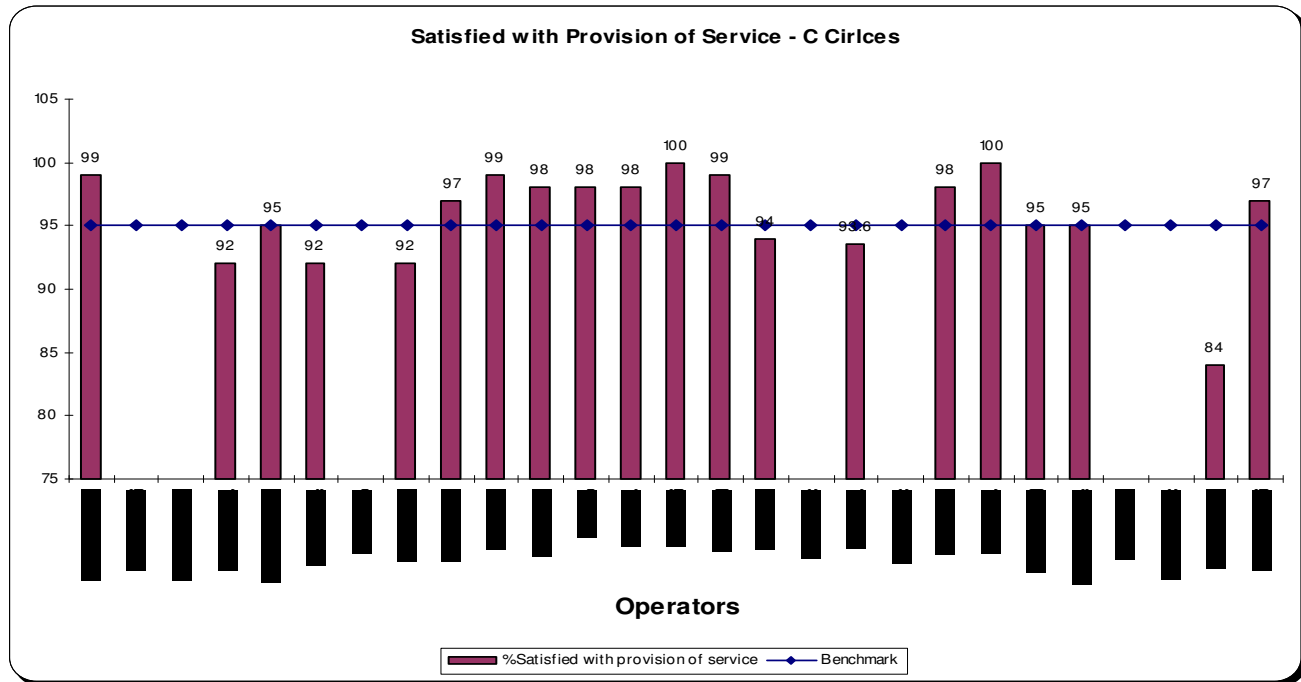


Survey was conducted for 38 operators. Out of these, 36 Operators were found not meeting the Criteria. Haryana TATA, Kerala TATA, MP TATA, Punjab HFCL & TATA, Rajasthan TATA, UP E TATA, UP W TATA, West Bengal TATA and Dishnet were not covered.

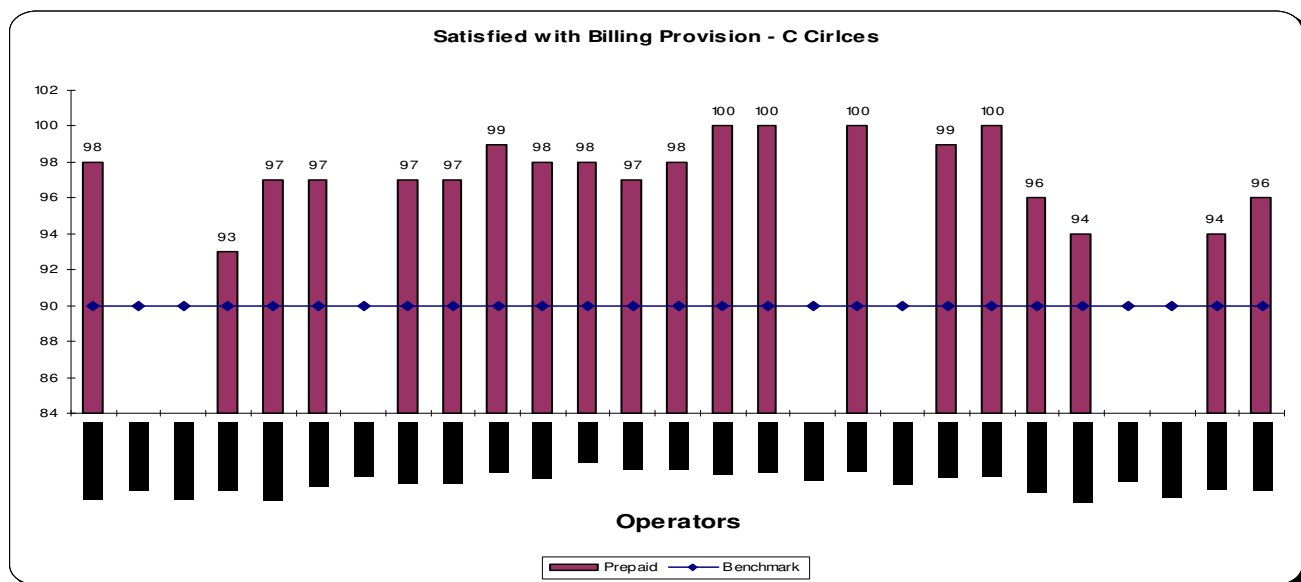


Survey was conducted for 38 operators. Out of these, 22 Operators were found not meeting the Criteria. Haryana TATA, Kerala TATA, MP TATA, Punjab HFCL & TATA, Rajasthan TATA, UP E TATA, UP W TATA, West Bengal TATA and Dishnet were not covered.

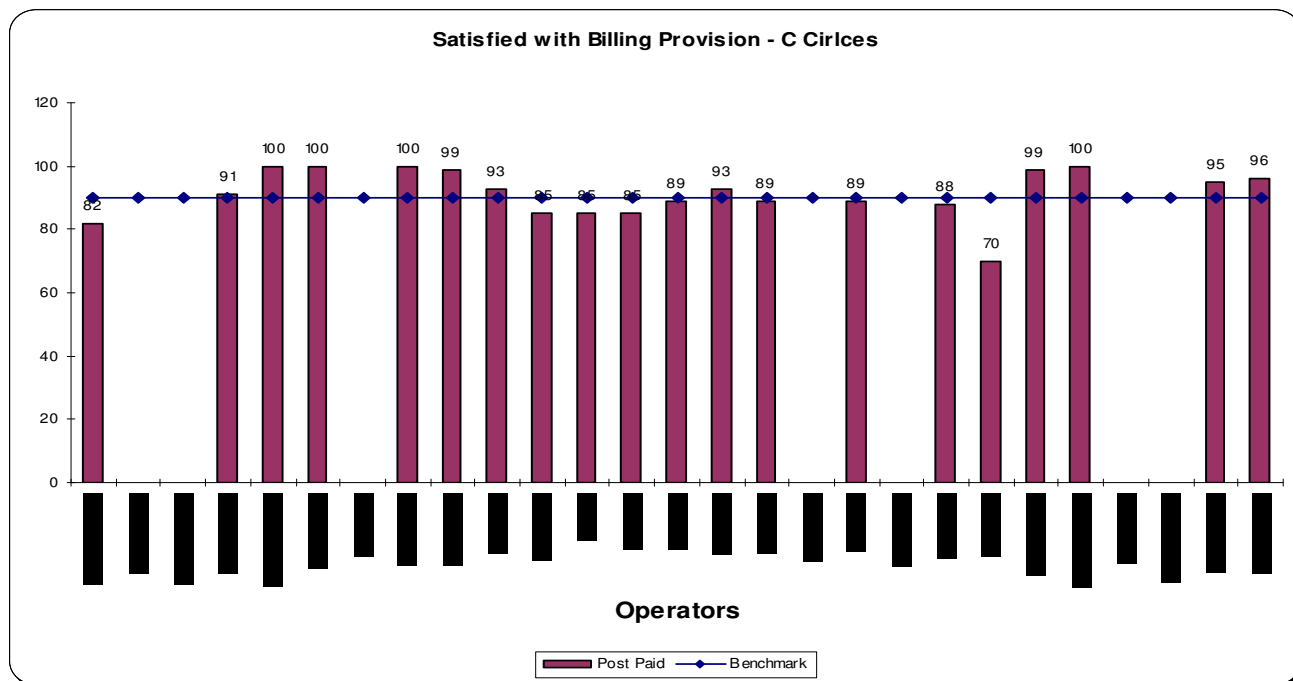
4.3.4 C CIRCLES



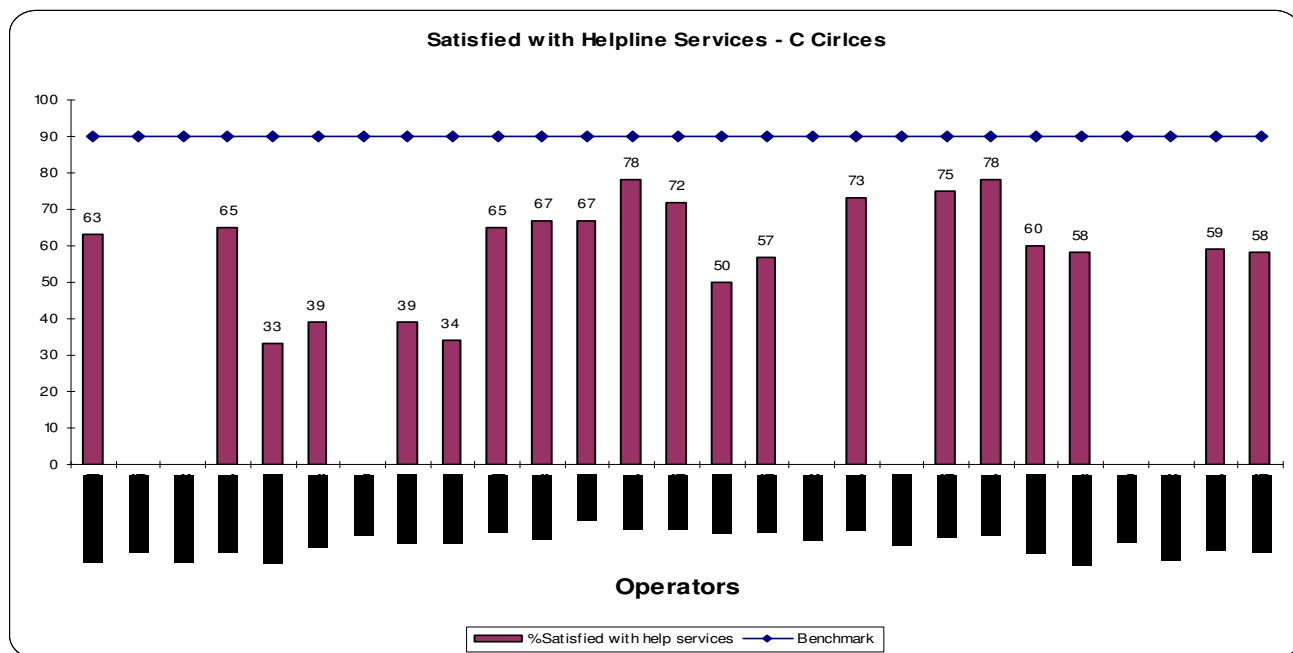
Survey was conducted for 20 operators. Out of these, 6 Operators were found not meeting the Criteria. Assam Bharti, Assam Dishnet, Bihar Tata, NE Dishnet, J&K Dishnet, Orissa TATA and Orissa Dishnet were not done.



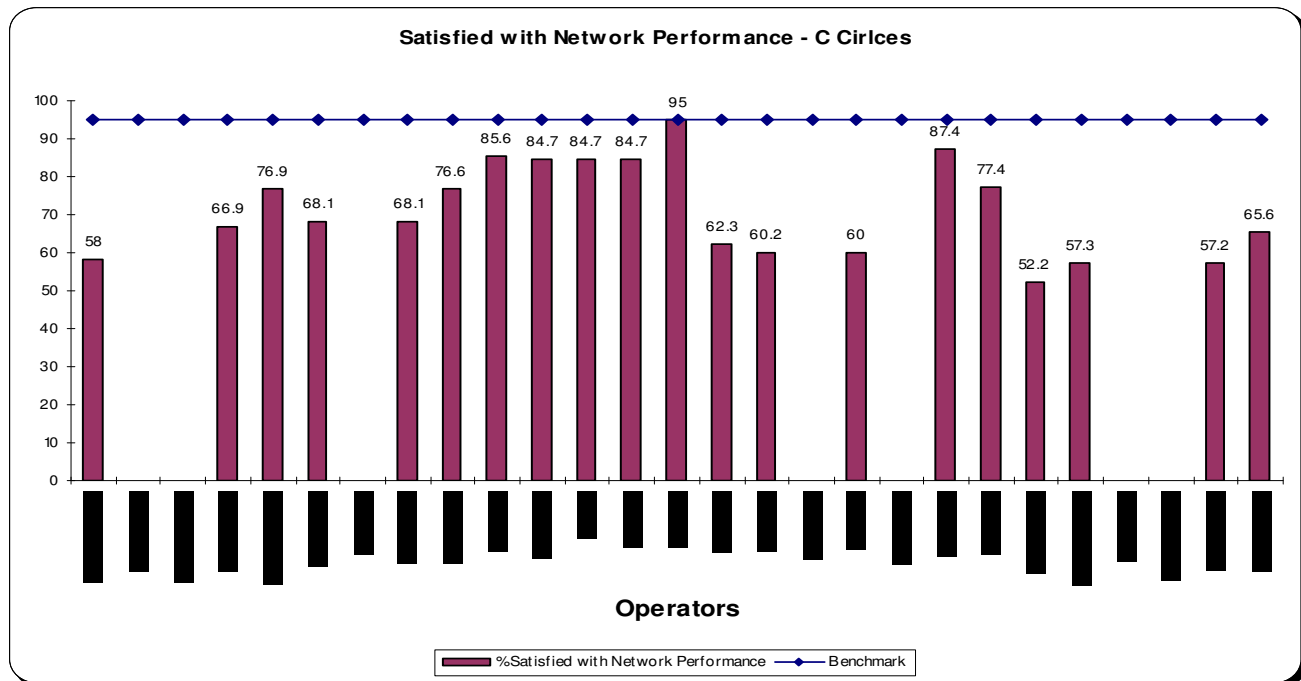
Survey was conducted for 20 operators. All Operators were found meeting the Criteria. Assam Bharti, Assam Dishnet, Bihar Tata, NE Dishnet, J&K Dishnet, Orissa TATA and Orissa Dishnet were not done.



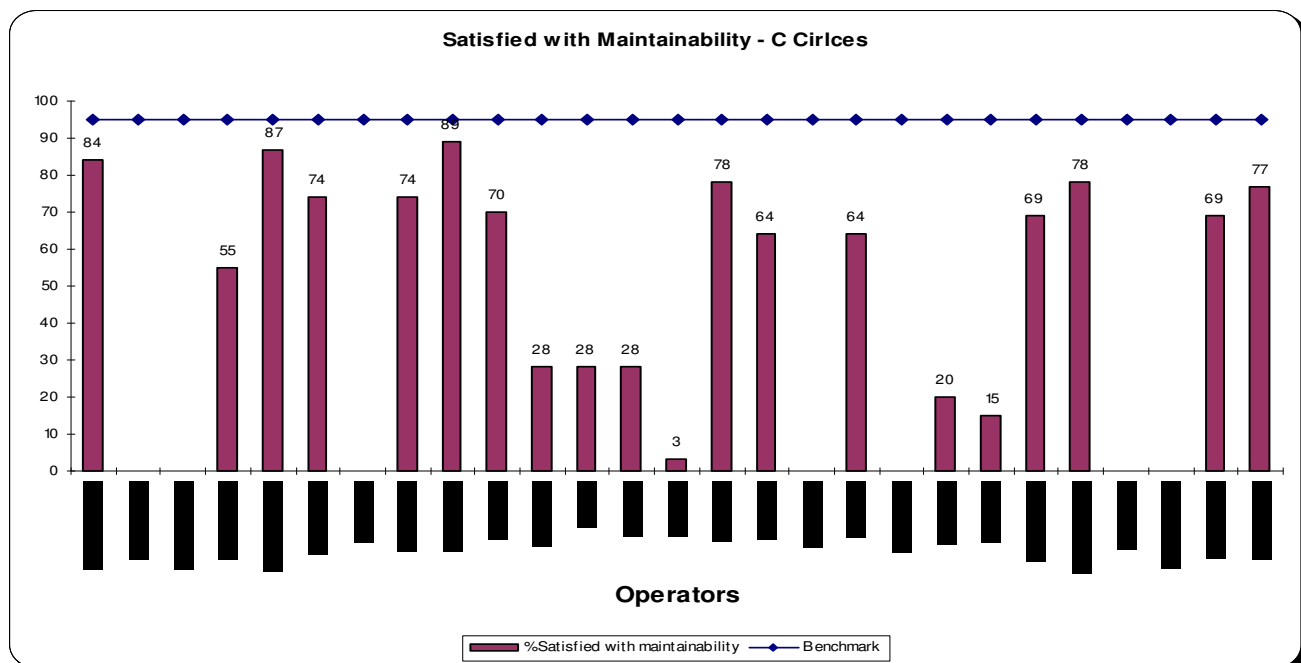
Survey was conducted for 20 operators. Out of these, 9 Operators were found not meeting the Criteria. Assam Bharti, Assam Dishnet, Bihar Tata, NE Dishnet, J&K Dishnet, Orissa TATA and Orissa Dishnet were not done.



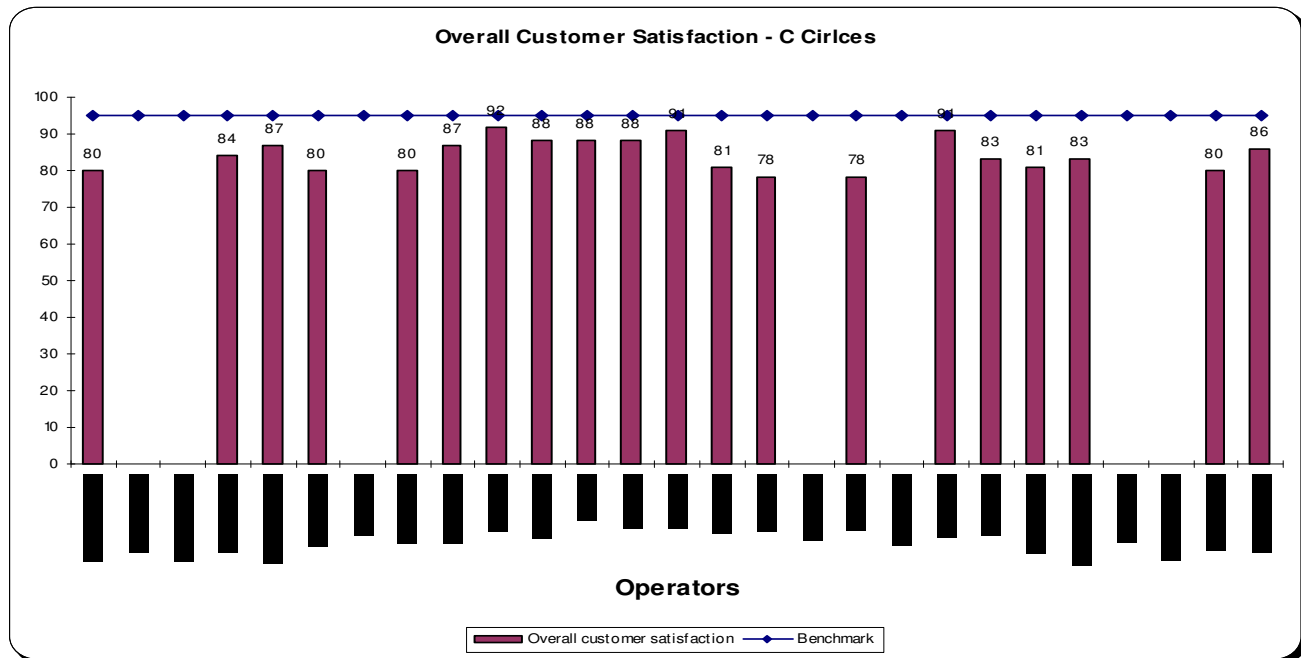
Survey was conducted for 20 operators. Out of these, none of the operators were found meeting the Criteria. Assam Bharti, Assam Dishnet, Bihar Tata, NE Dishnet, J&K Dishnet, Orissa TATA and Orissa Dishnet were not done.



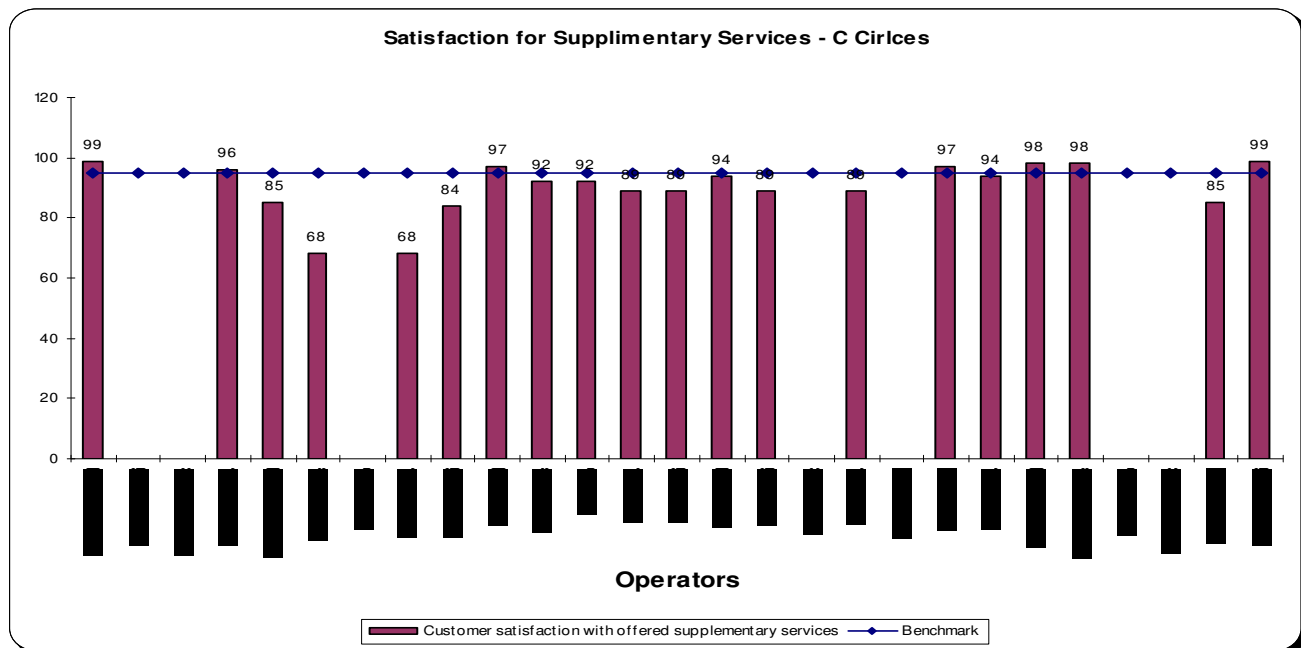
Survey was conducted for 20 operators. Out of these, 19 Operators were found not meeting the Criteria. Assam Bharti, Assam Dishnet, Bihar Tata, NE Dishnet, J&K Dishnet, Orissa TATA and Orissa Dishnet were not done.



Survey was conducted for 20 operators. Out of these, none of the Operators were found meeting the Criteria. Assam Bharti, Assam Dishnet, Bihar Tata, NE Dishnet, J&K Dishnet, Orissa TATA and Orissa Dishnet were not done.



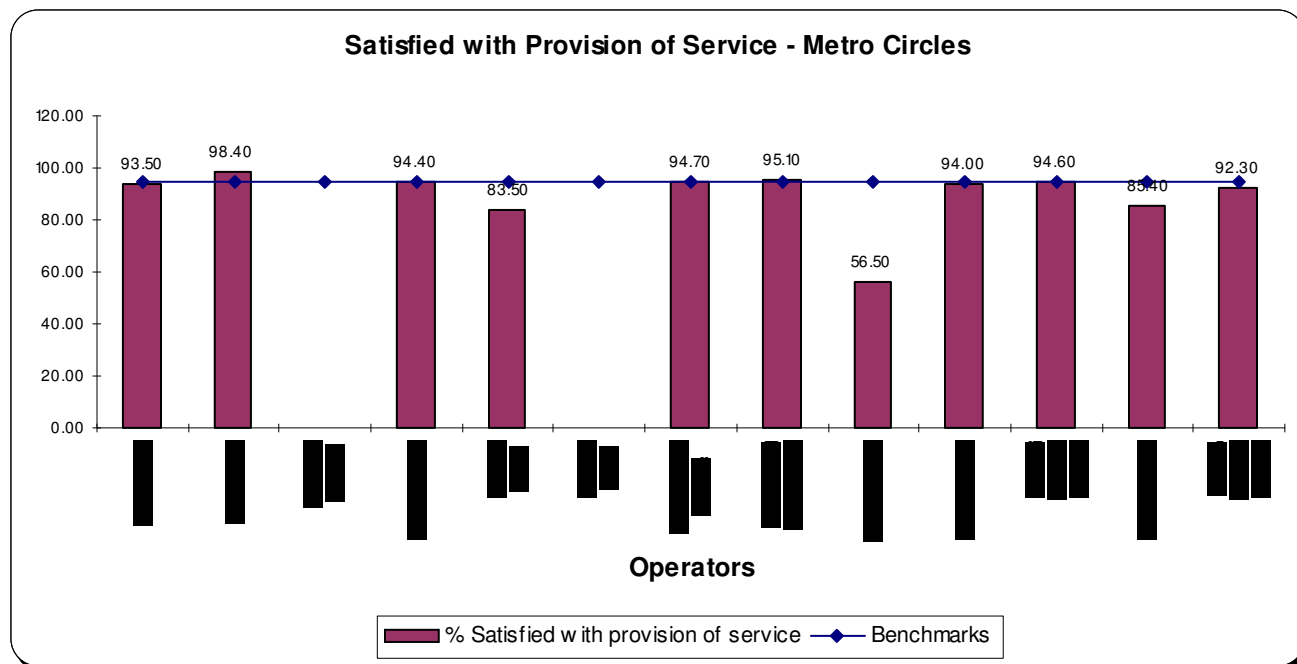
Survey was conducted for 20 operators. Out of these, none of the Operators were found meeting the Criteria. Assam Bharti, Assam Dishnet, Bihar Tata, NE Dishnet, J&K Dishnet, Orissa TATA and Orissa Dishnet were not done.



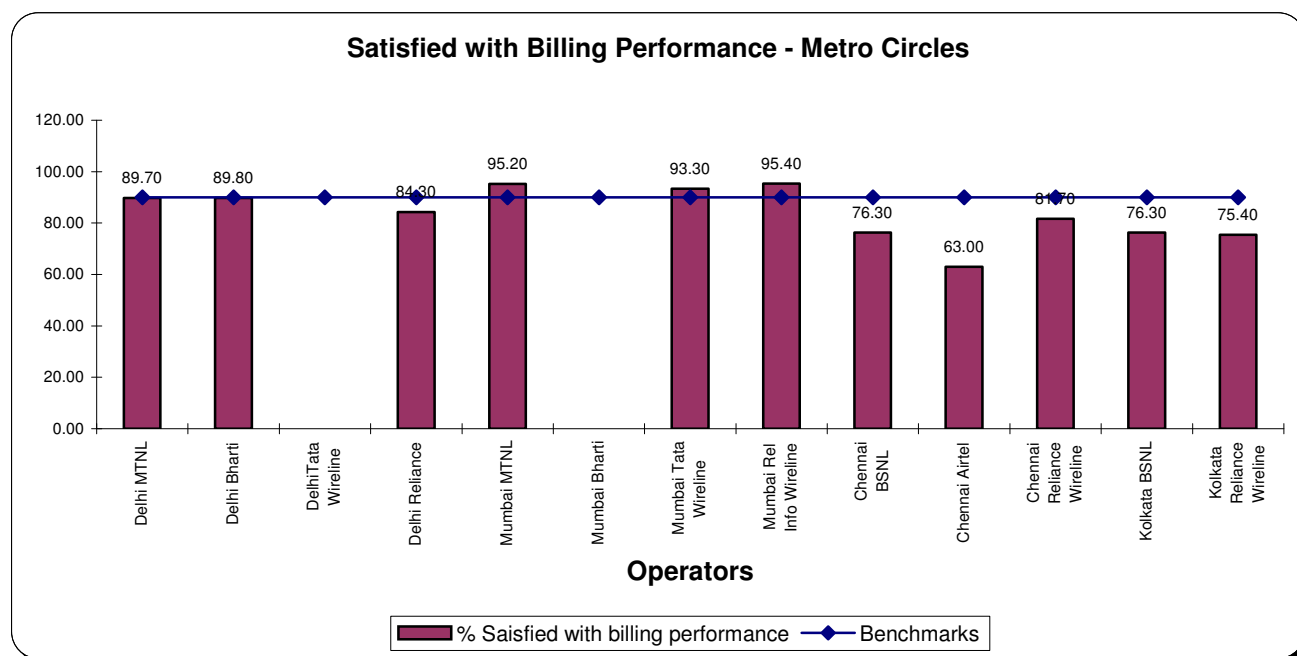
Survey was conducted for 20 operators. Out of these, 13 Operators were found not meeting the Criteria. Assam Bharti, Assam Dishnet, Bihar Tata, NE Dishnet, J&K Dishnet, Orissa TATA and Orissa Dishnet were not done.

4.4 CSS – BASIC

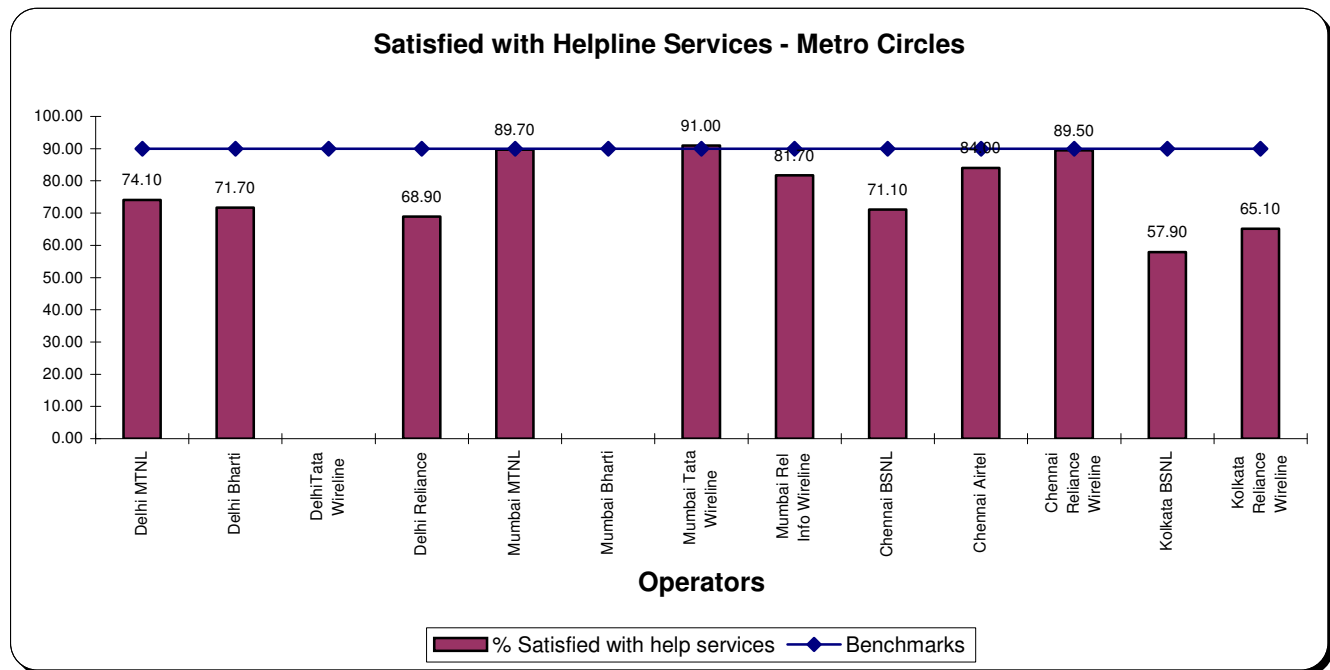
4.4.1 METRO CIRCLES



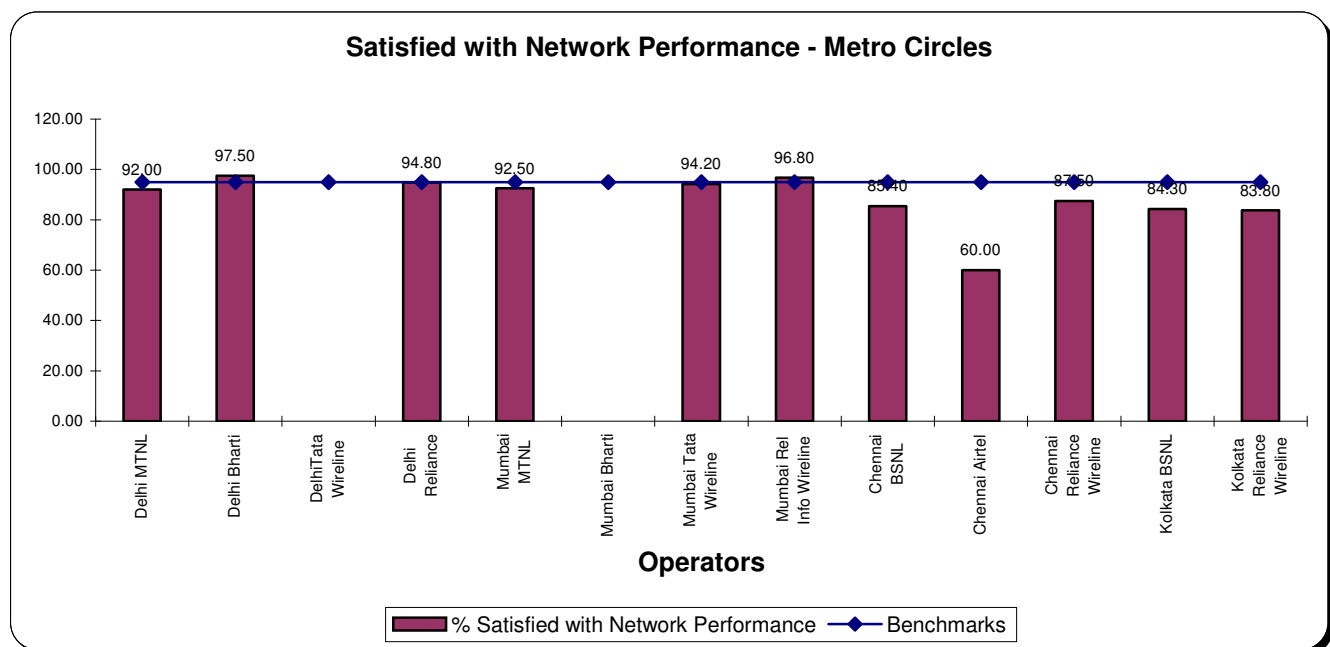
Survey was conducted for all 11 operators. Out of these, 9 Operators were found not meeting the Criteria. Delhi Tata and Mumbai Bharti were not covered.



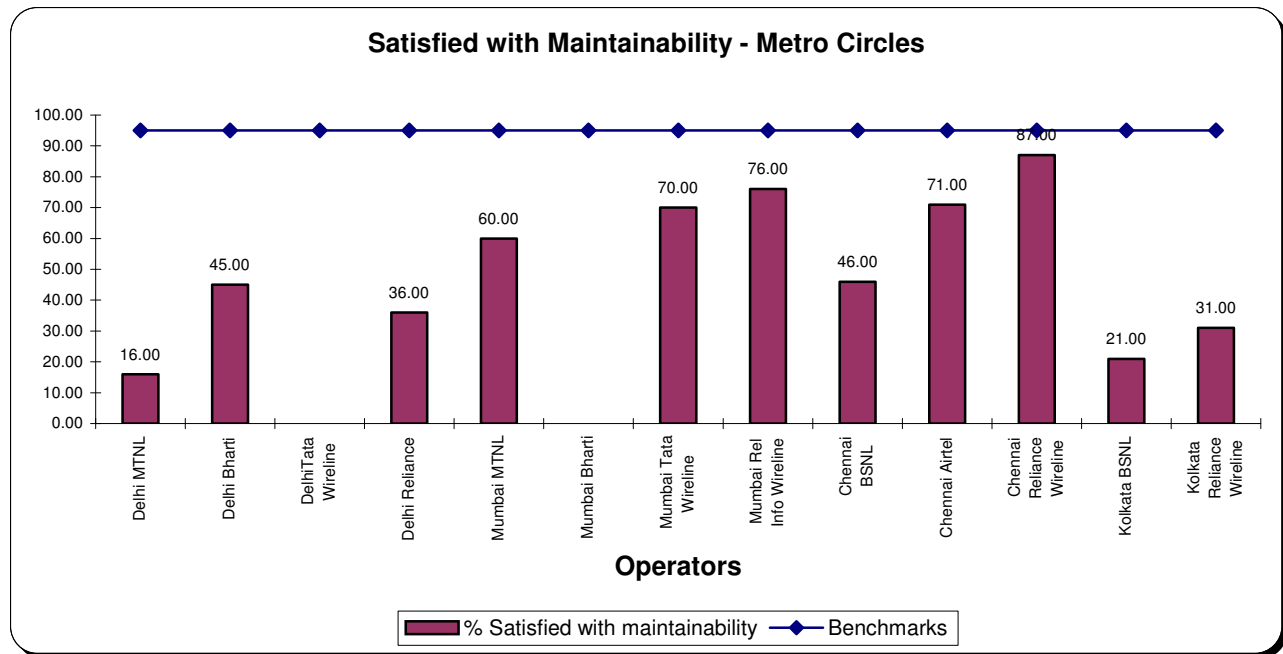
Survey was conducted for all 11 operators. Out of these, 8 Operators were found not meeting the Criteria. Delhi Tata and Mumbai Bharti were not covered.



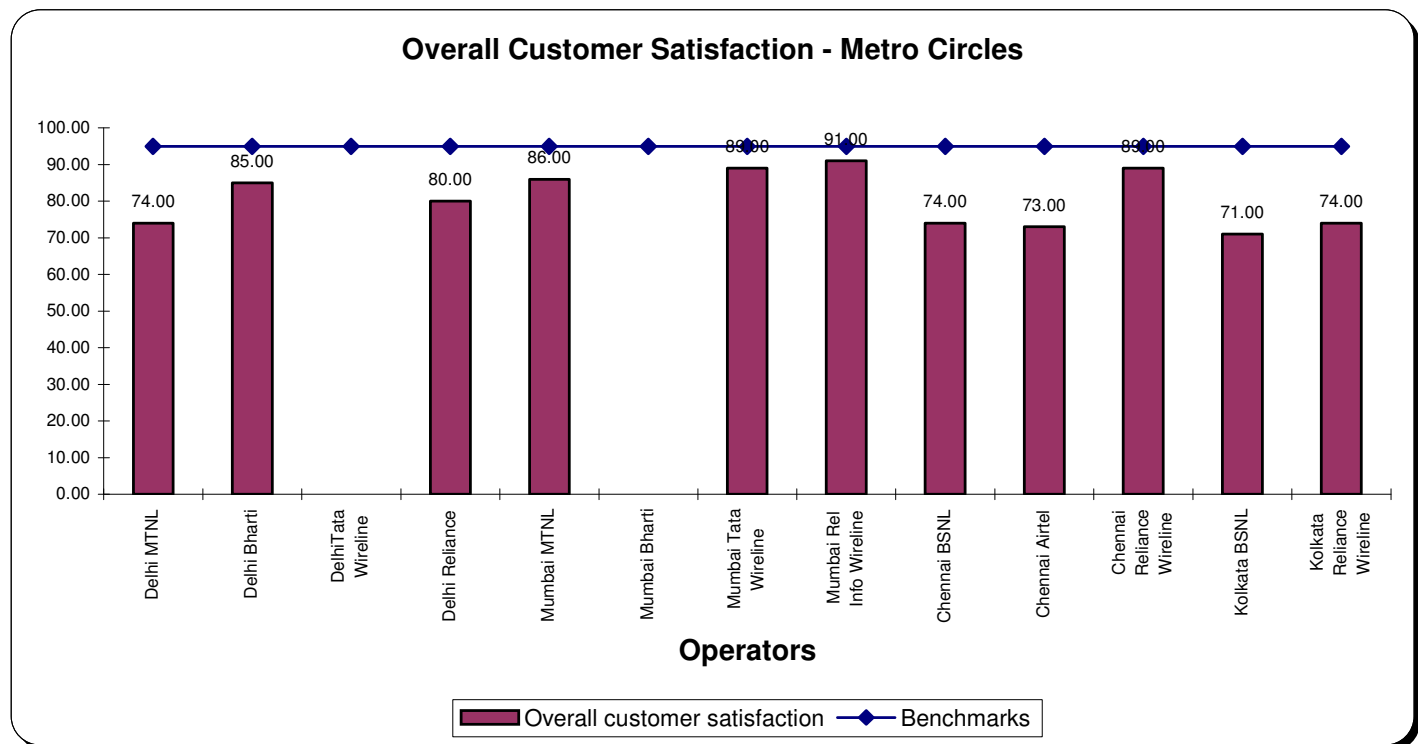
Survey was conducted for all 11 operators. Out of these, 10 Operators were found not meeting the Criteria. Delhi Tata and Mumbai Bharti were not covered.



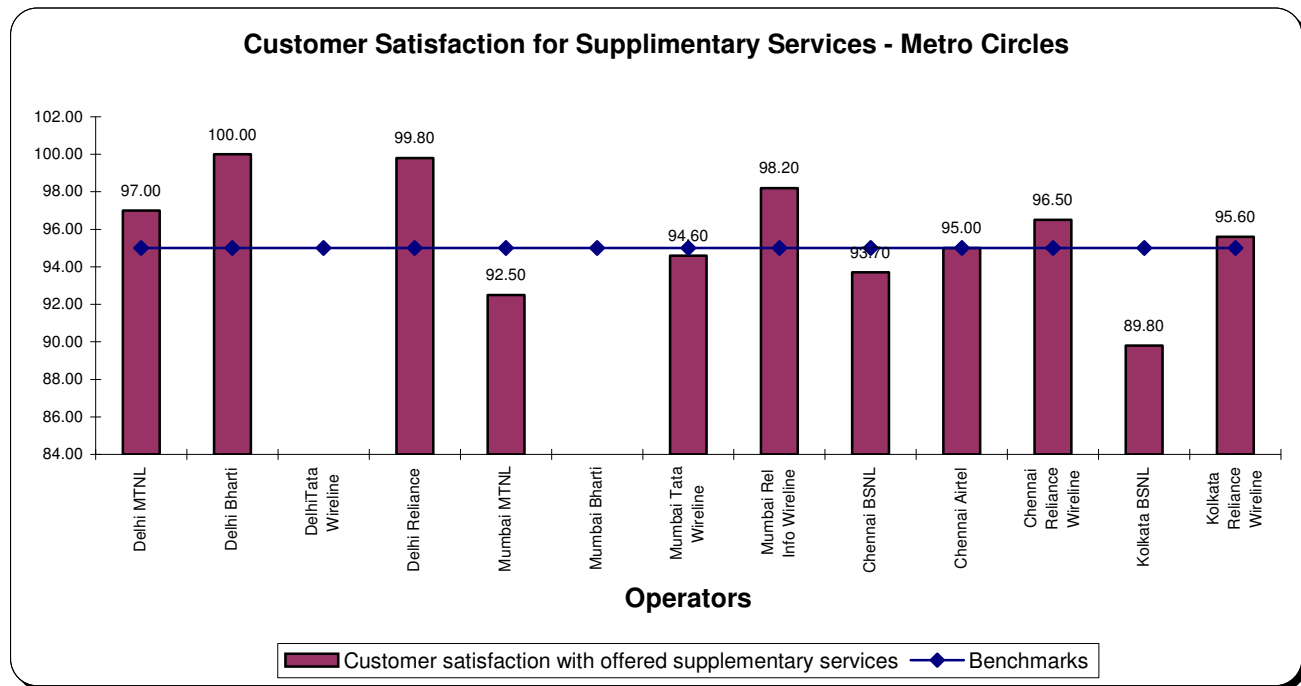
Survey was conducted for all 11 operators. Out of these, 9 Operators were found not meeting the Criteria. Delhi Tata and Mumbai Bharti were not covered.



Survey was conducted for all 11 operators. All Operators were found not meeting the Criteria. Delhi Tata and Mumbai Bharti were not covered.

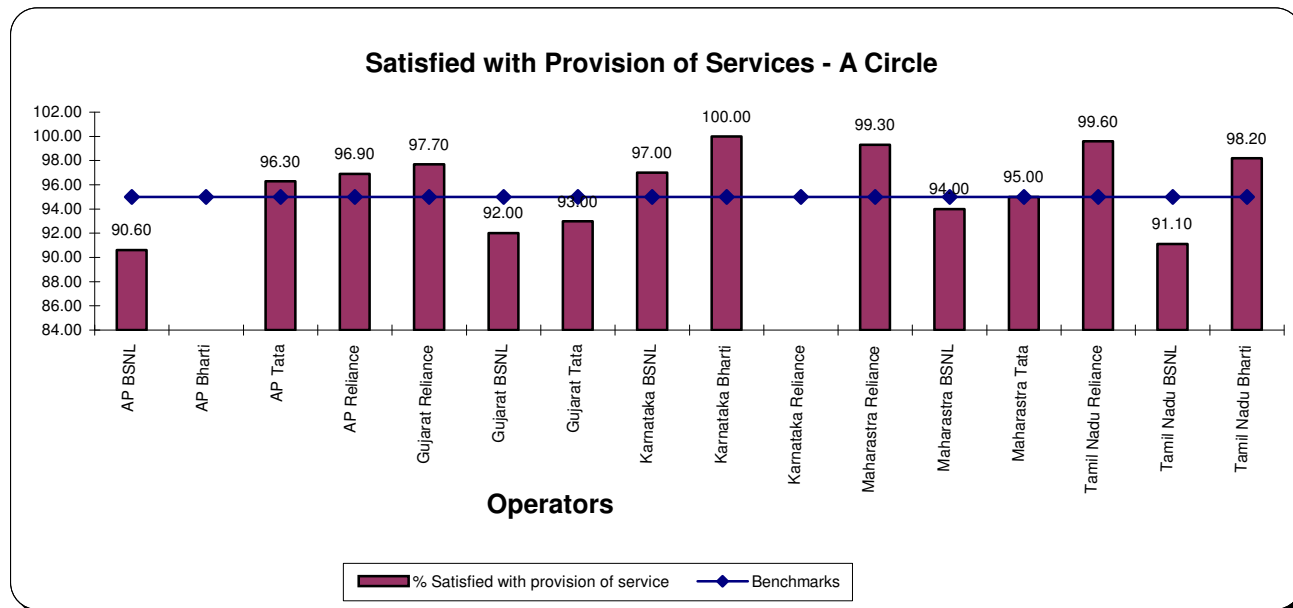


Survey was conducted for all 11 operators. All Operators were found not meeting the Criteria. Delhi Tata and Mumbai Bharti were not covered.

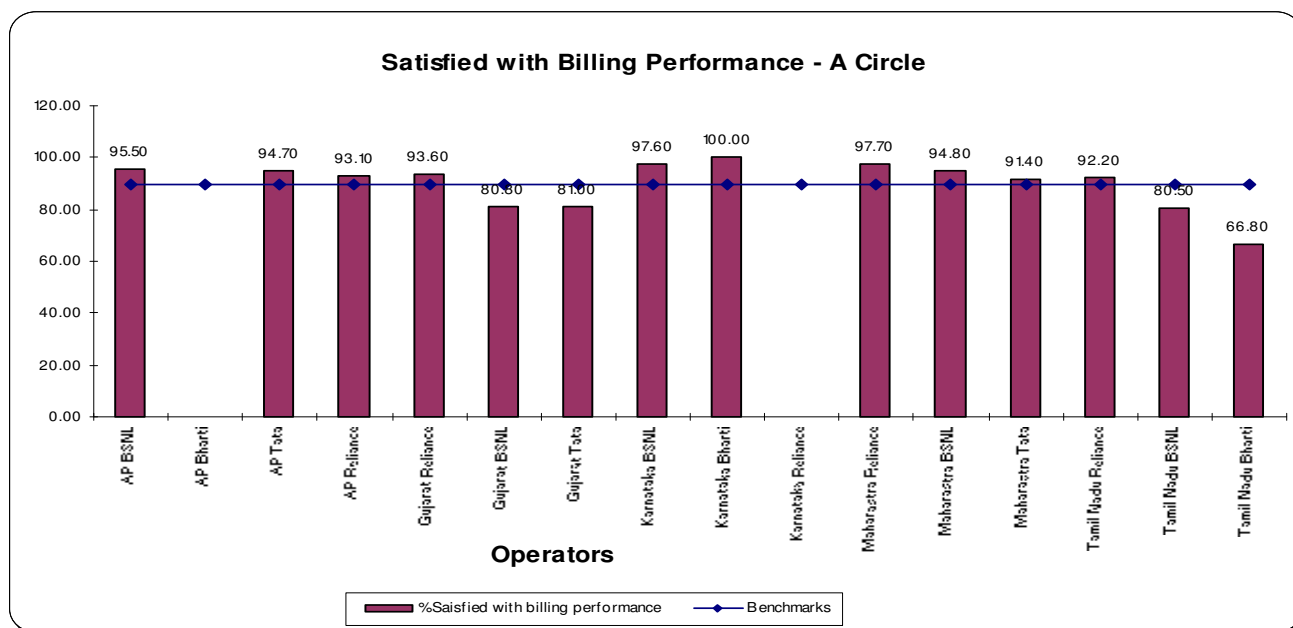


Survey was conducted for all 11 operators. Out of these, 4 Operators were found not meeting the Criteria. Delhi Tata and Mumbai Bharti were not covered.

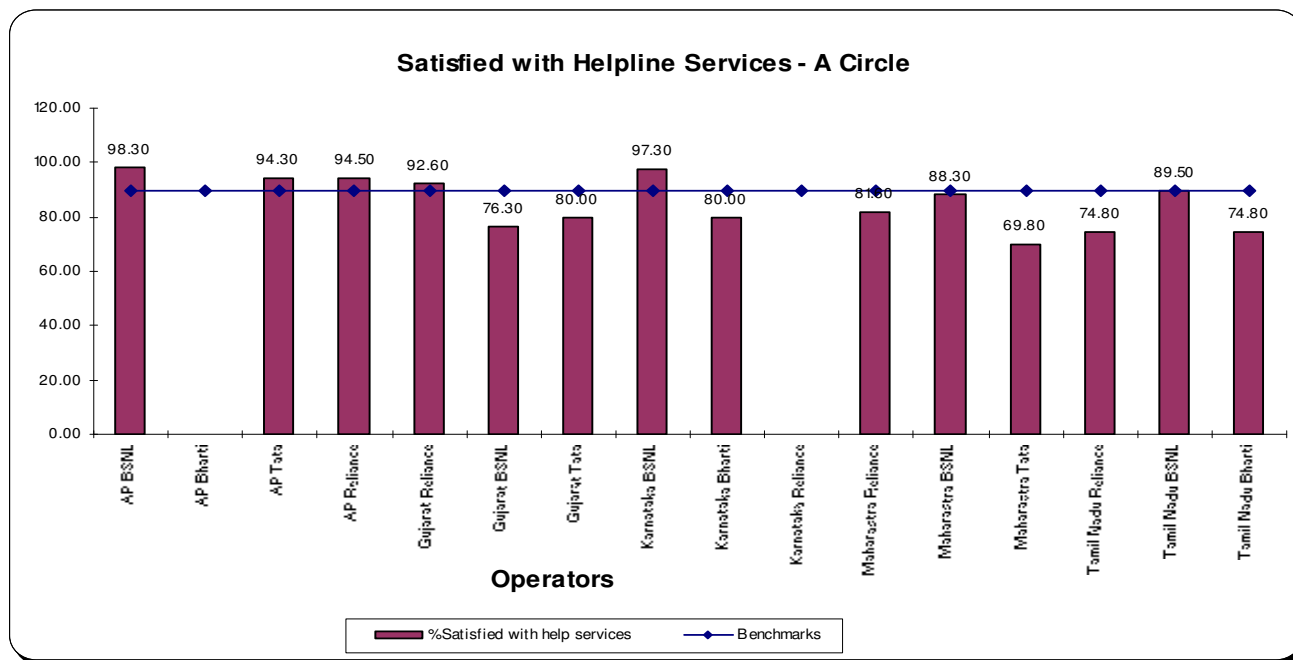
4.4.2 A CIRCLES



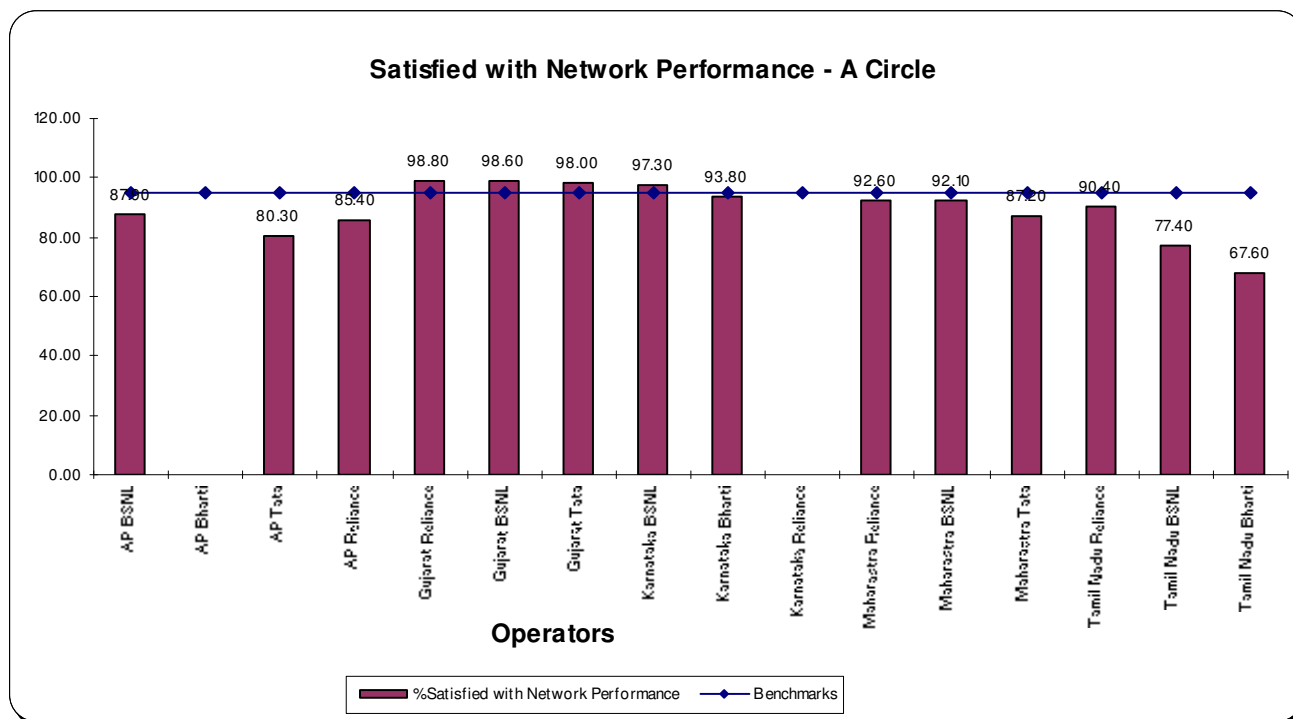
Survey was conducted for 14 operators. Out of these, 5 Operators were found not meeting the Criteria. AP Bharti and Karnataka Reliance were not covered.



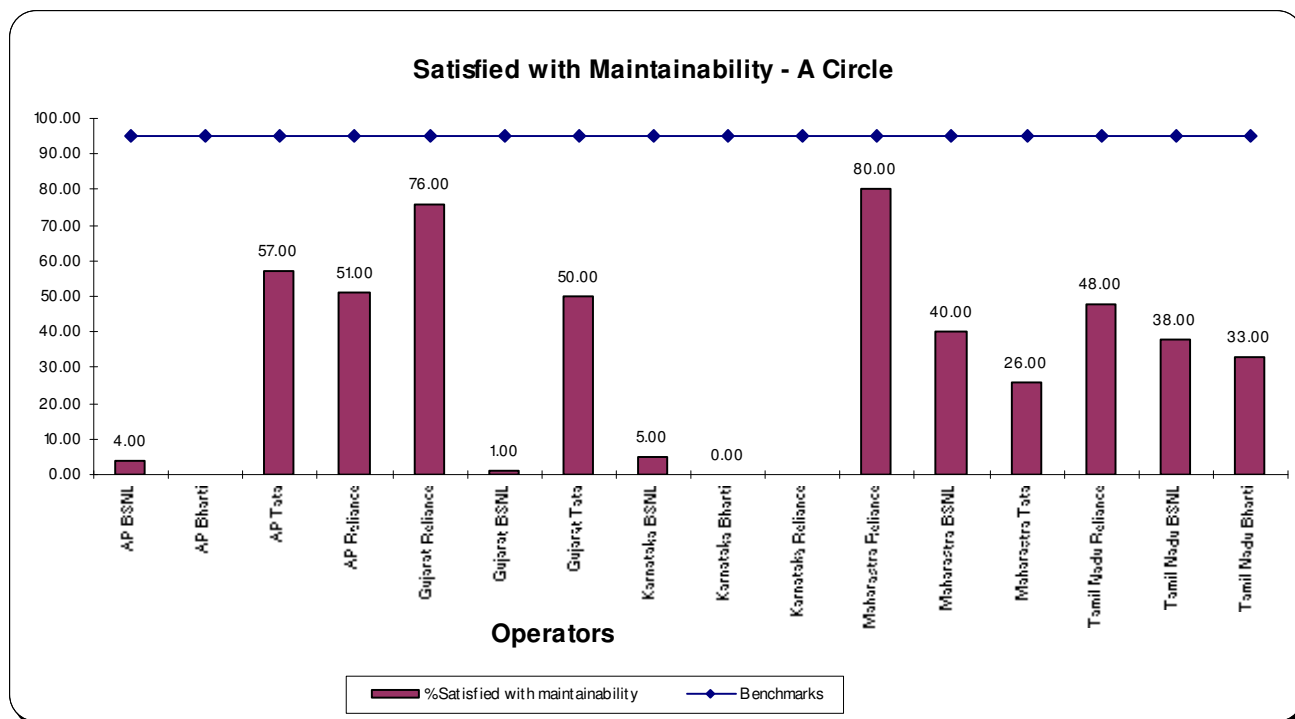
Survey was conducted for 14 operators. Out of these, 4 Operators were found not meeting the Criteria. AP Bharti and Karnataka Reliance were not covered.



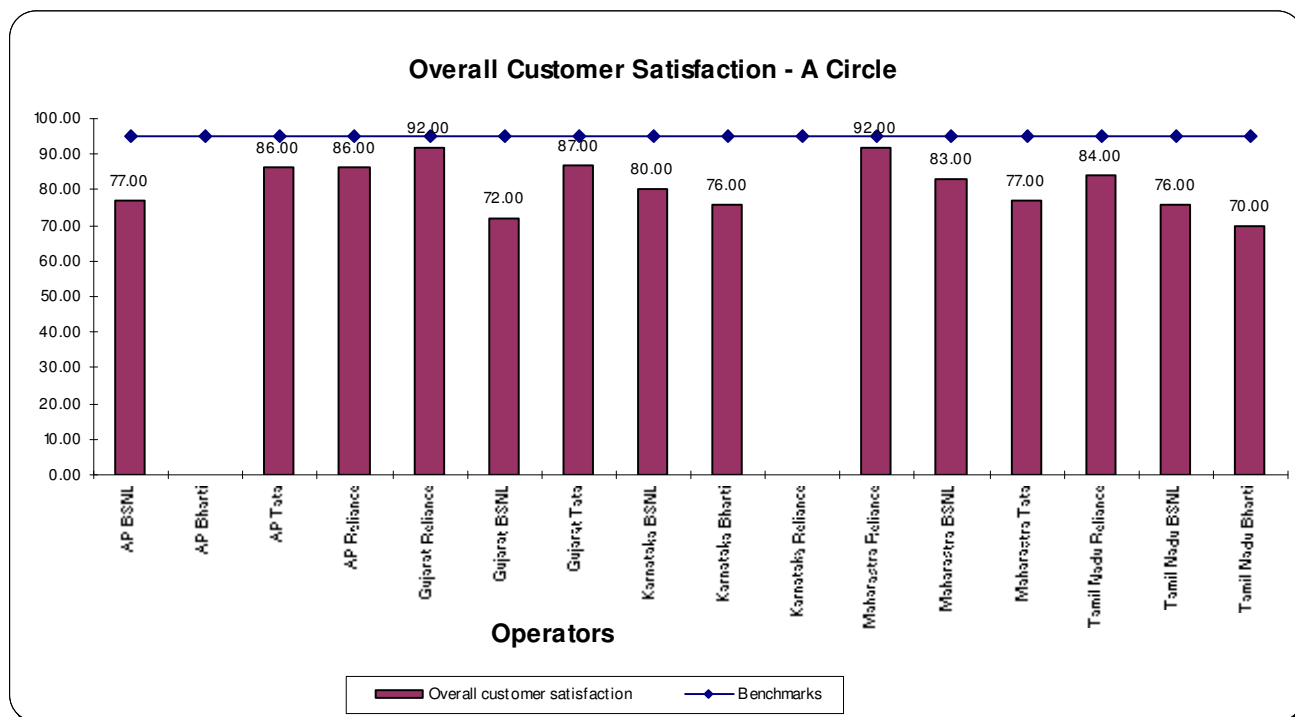
Survey was conducted for 14 operators. Out of these, 9 Operators were found not meeting the Criteria. AP Bharti and Karnataka Reliance were not covered.



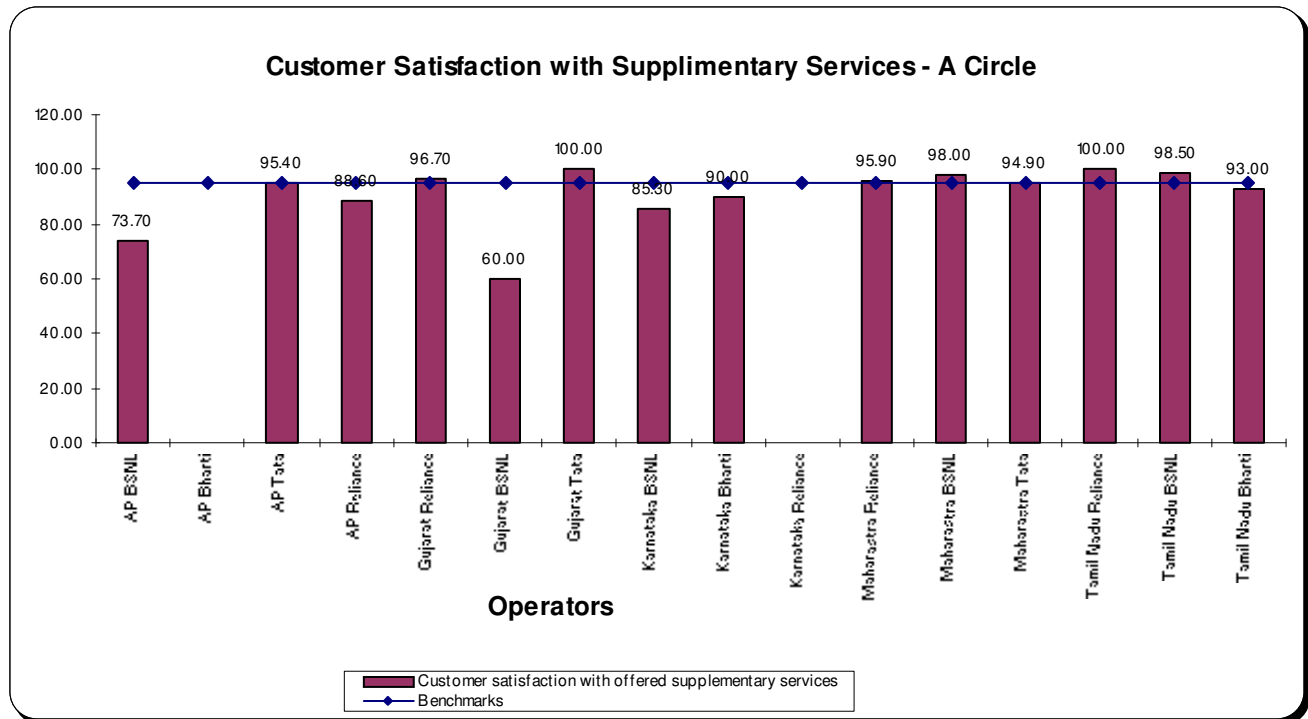
Survey was conducted for 14 operators. Out of these, 10 Operators were found not meeting the Criteria. AP Bharti and Karnataka Reliance were not covered.



Survey was conducted for 14 operators. All Operators were found not meeting the Criteria. AP Bharti and Karnataka Reliance were not covered.

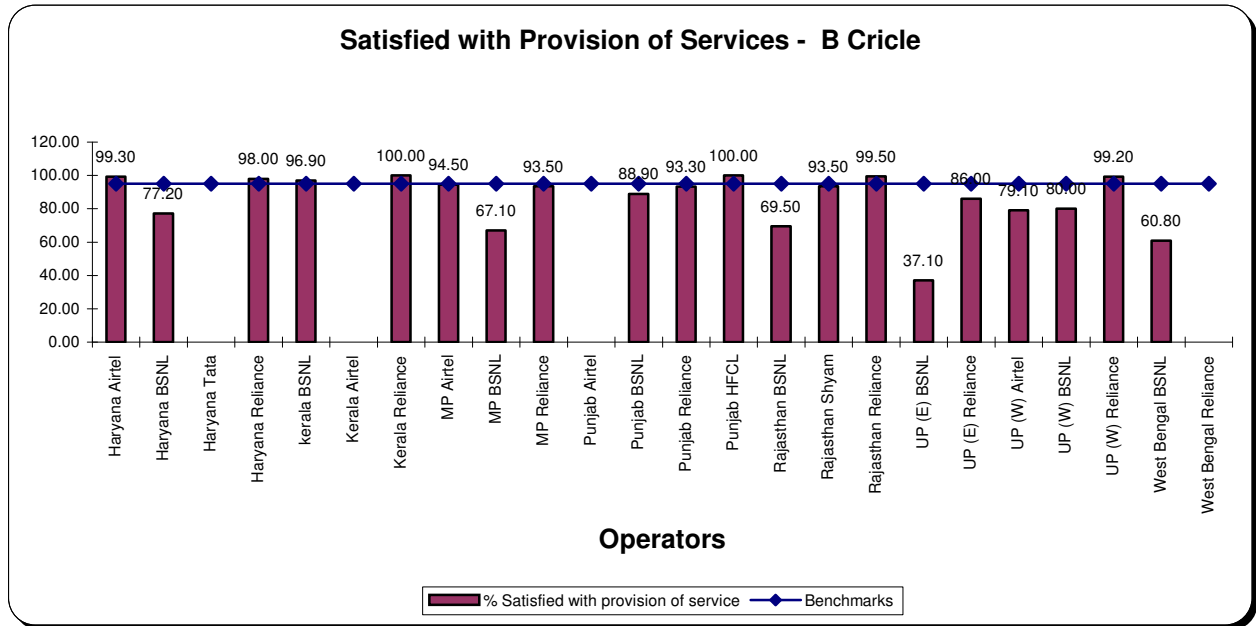


Survey was conducted for 14 operators. All Operators were found not meeting the Criteria. AP Bharti and Karnataka Reliance were not covered.

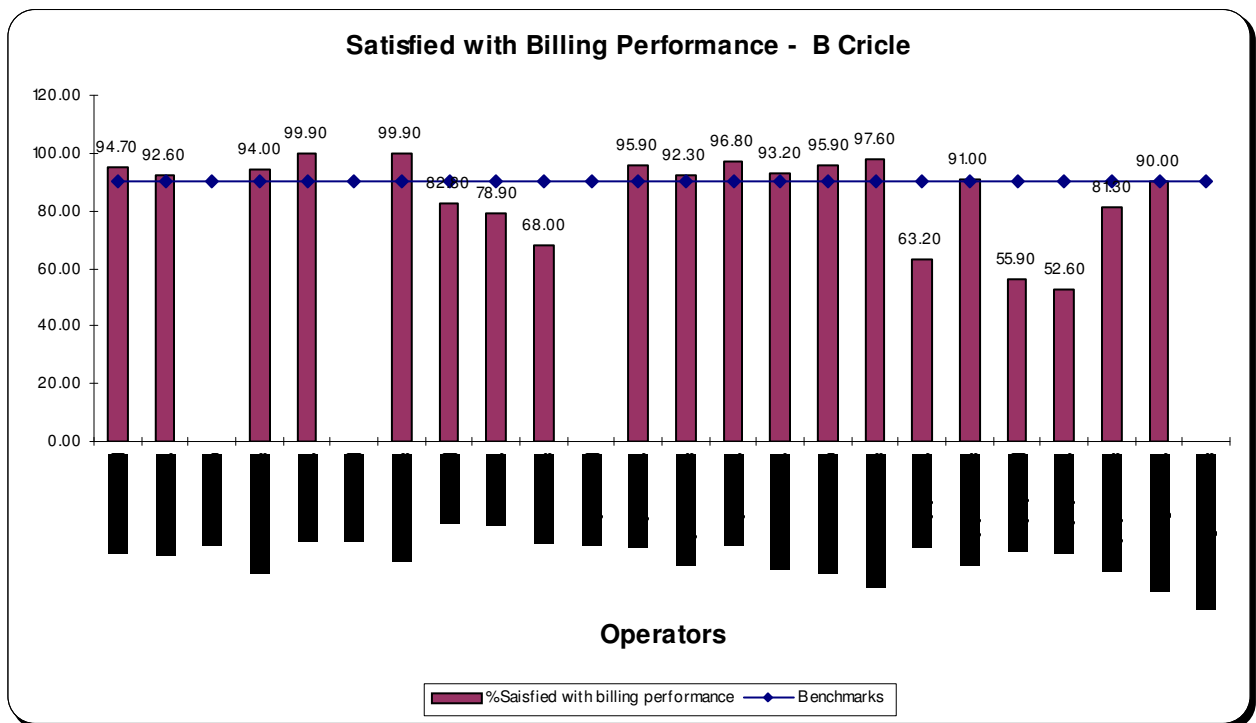


Survey was conducted for 14 operators. Out of these, 7 Operators were found not meeting the Criteria. AP Bharti and Karnataka Reliance were not covered.

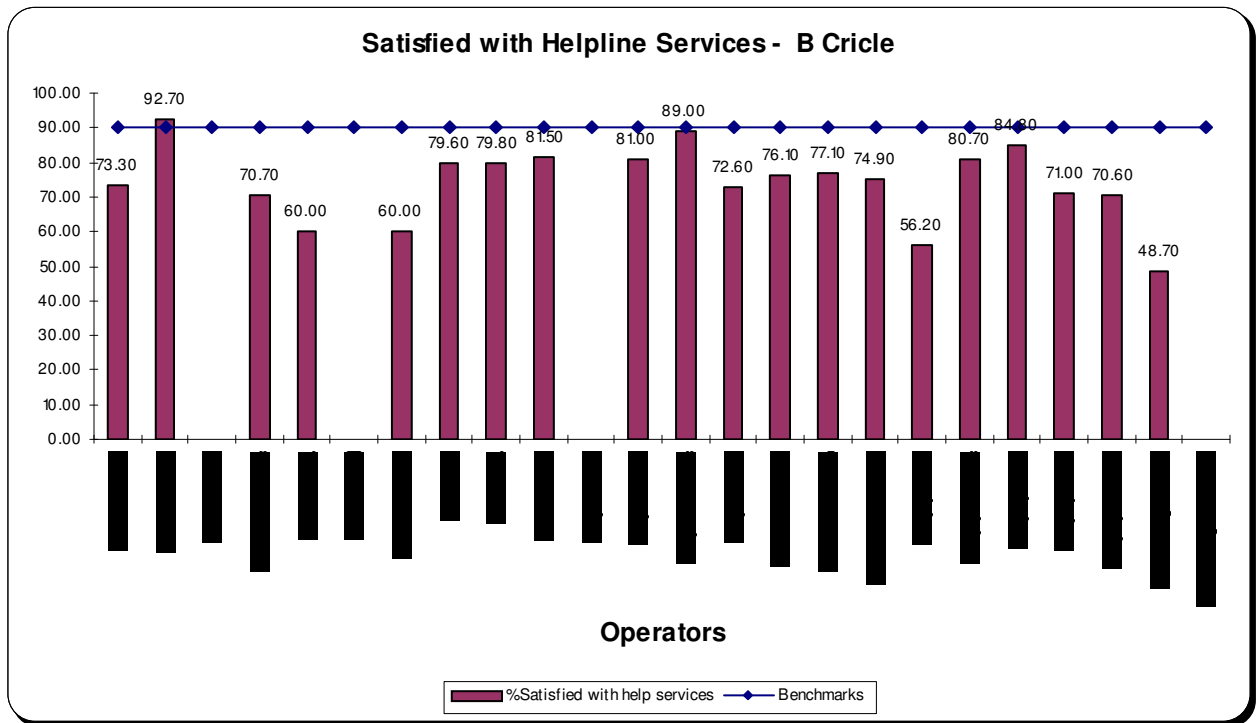
4.4.3 B CIRCLES



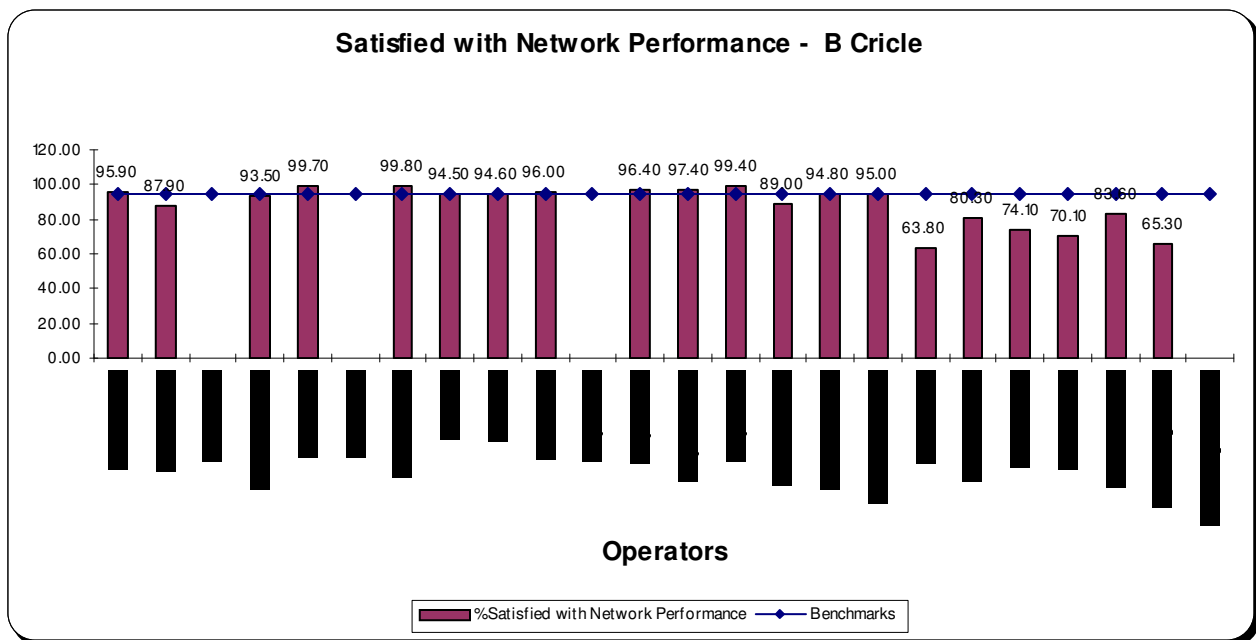
Survey was conducted for 20 operators. Out of these, 13 Operators were found not meeting the Criteria. Haryana TATA, Kerala Airtel, Punjab Airtel and West Bengal Reliance were not covered.



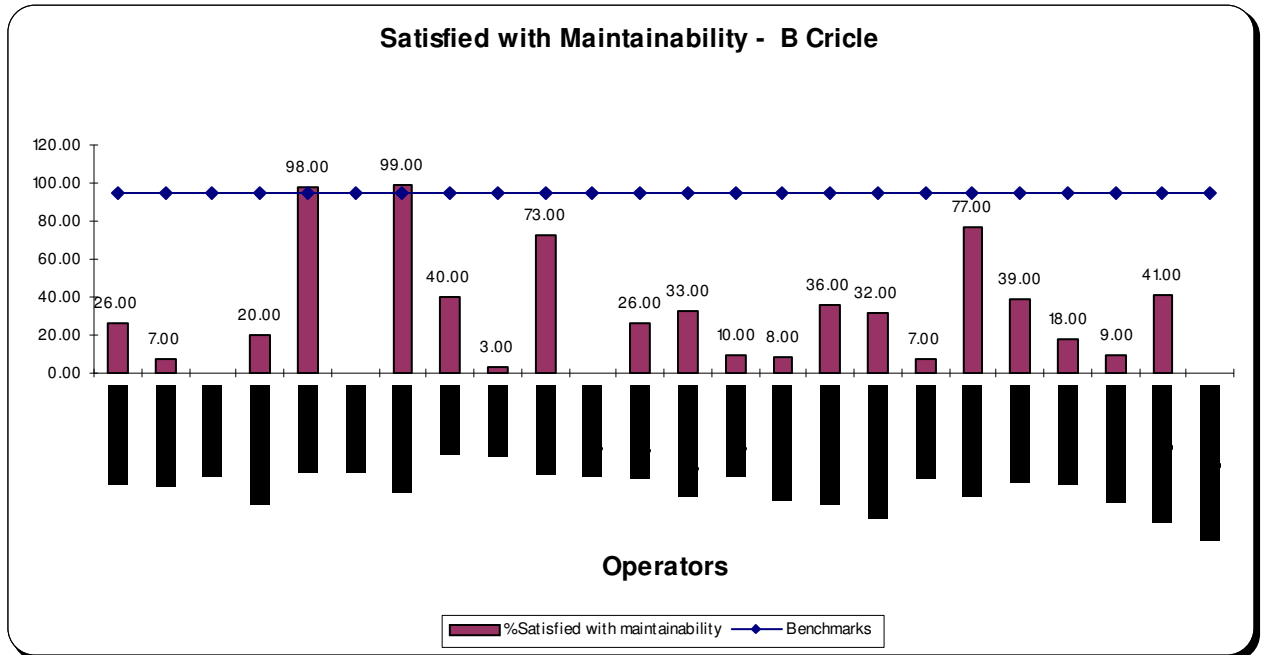
Survey was conducted for 20 operators. Out of these, 7 Operators were found not meeting the Criteria. Haryana TATA, Kerala Airtel, Punjab Airtel and West Bengal Reliance were not covered.



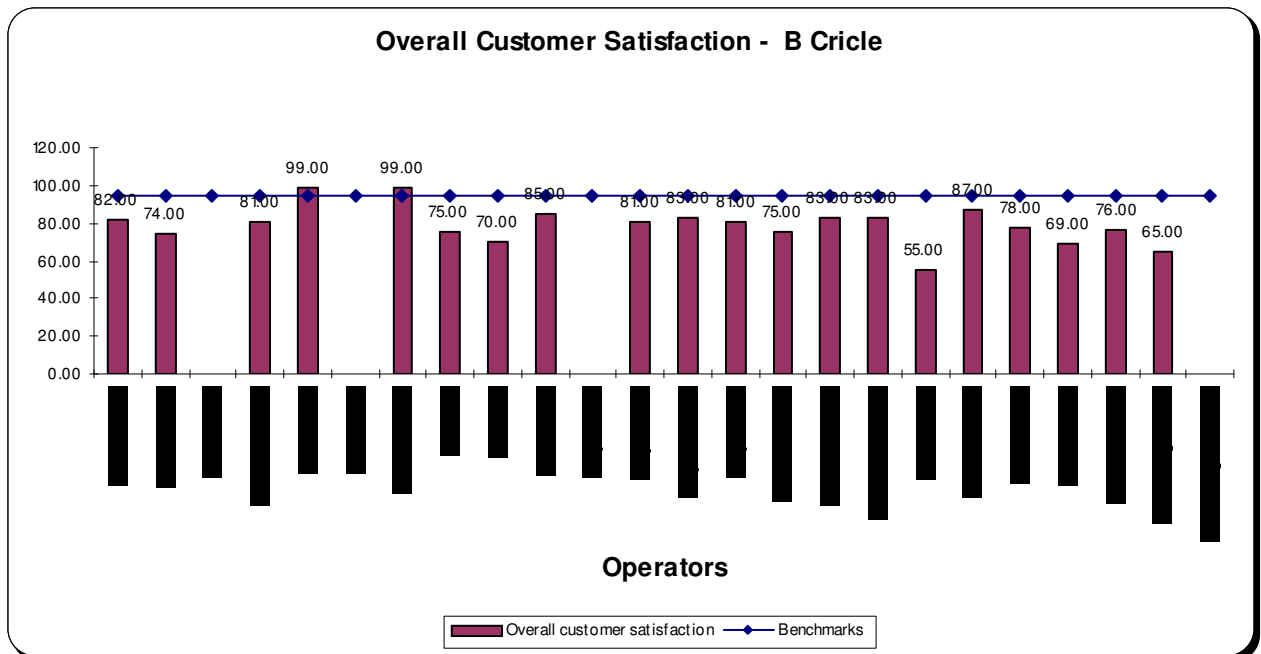
Survey was conducted for 20 operators. Out of these, 19 Operators were found not meeting the Criteria. Haryana TATA, Kerala Airtel, Punjab Airtel and West Bengal Reliance were not covered.



Survey was conducted for 20 operators. Out of these, 12 Operators were found not meeting the Criteria. Haryana TATA, Kerala Airtel, Punjab Airtel and West Bengal Reliance were not covered.



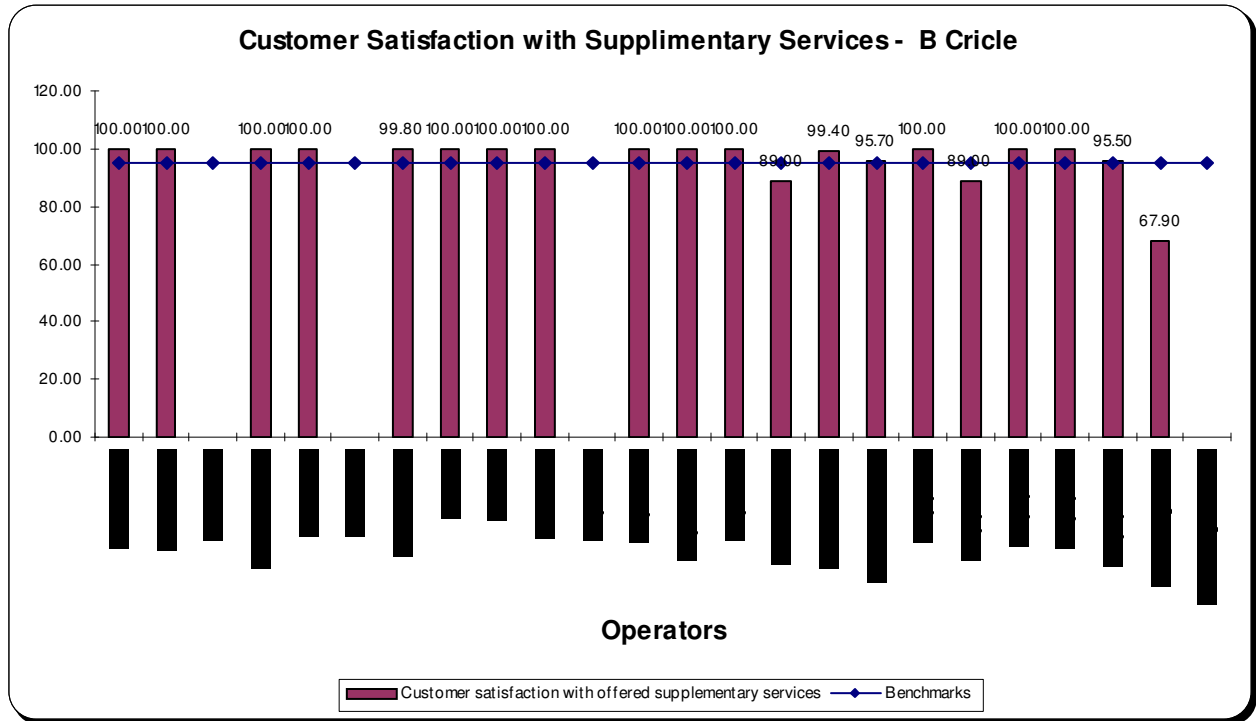
Survey was conducted for 20 operators. Out of these, 18 Operators were found not meeting the Criteria. Haryana TATA, Kerala Airtel, Punjab Airtel and West Bengal Reliance were not covered.





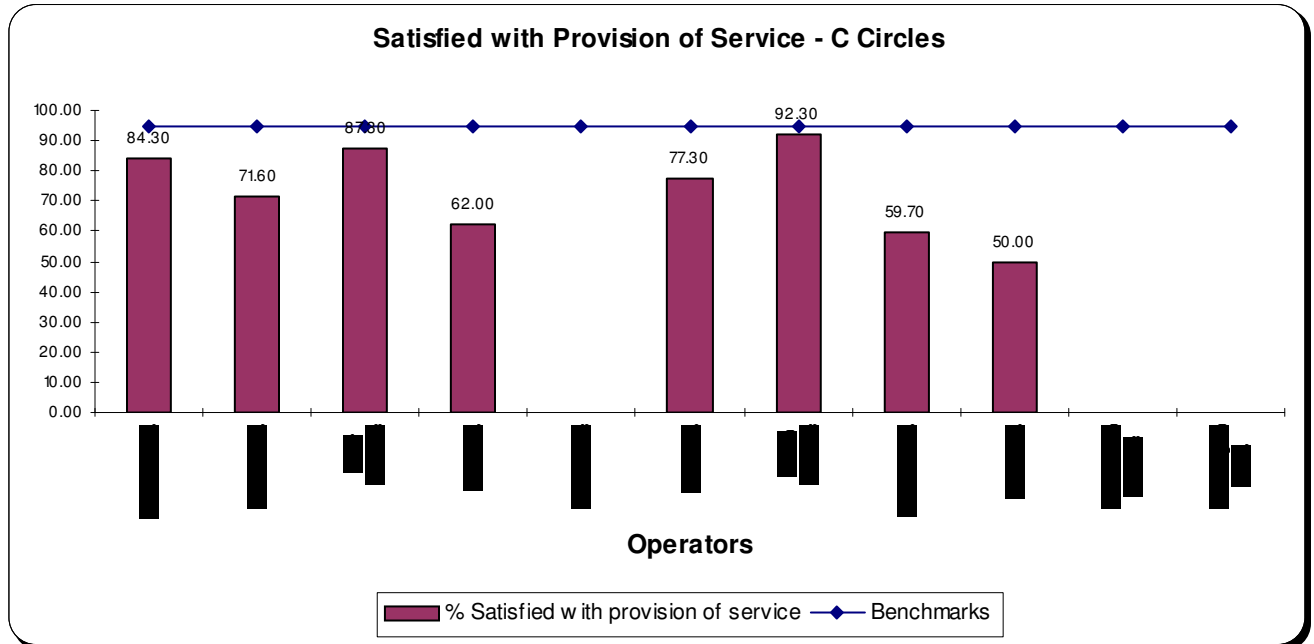
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Survey was conducted for 20 operators. Out of these, 18 Operators were found not meeting the Criteria. Haryana TATA, Kerala Airtel, Punjab Airtel and West Bengal Reliance were not covered.

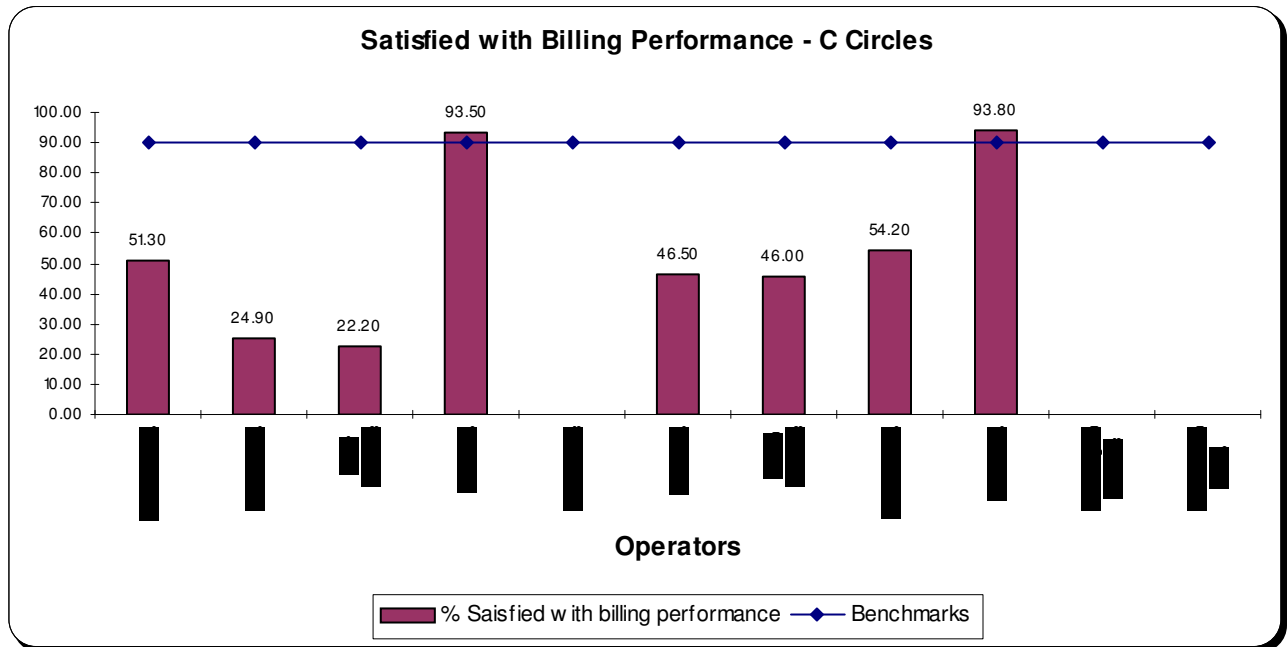


Survey was conducted for 20 operators. Out of these, 3 Operators were found not meeting the Criteria. Haryana TATA, Kerala Airtel, Punjab Airtel and West Bengal Reliance were not covered.

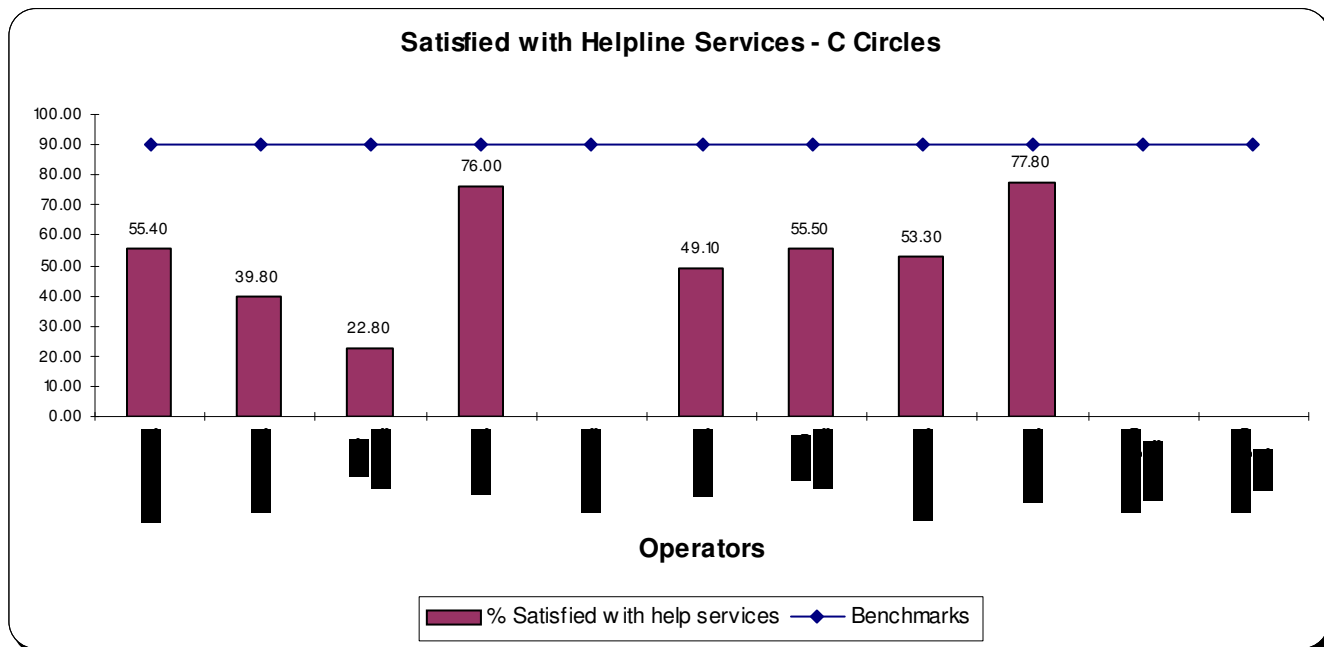
4.4.4 C CIRCLES



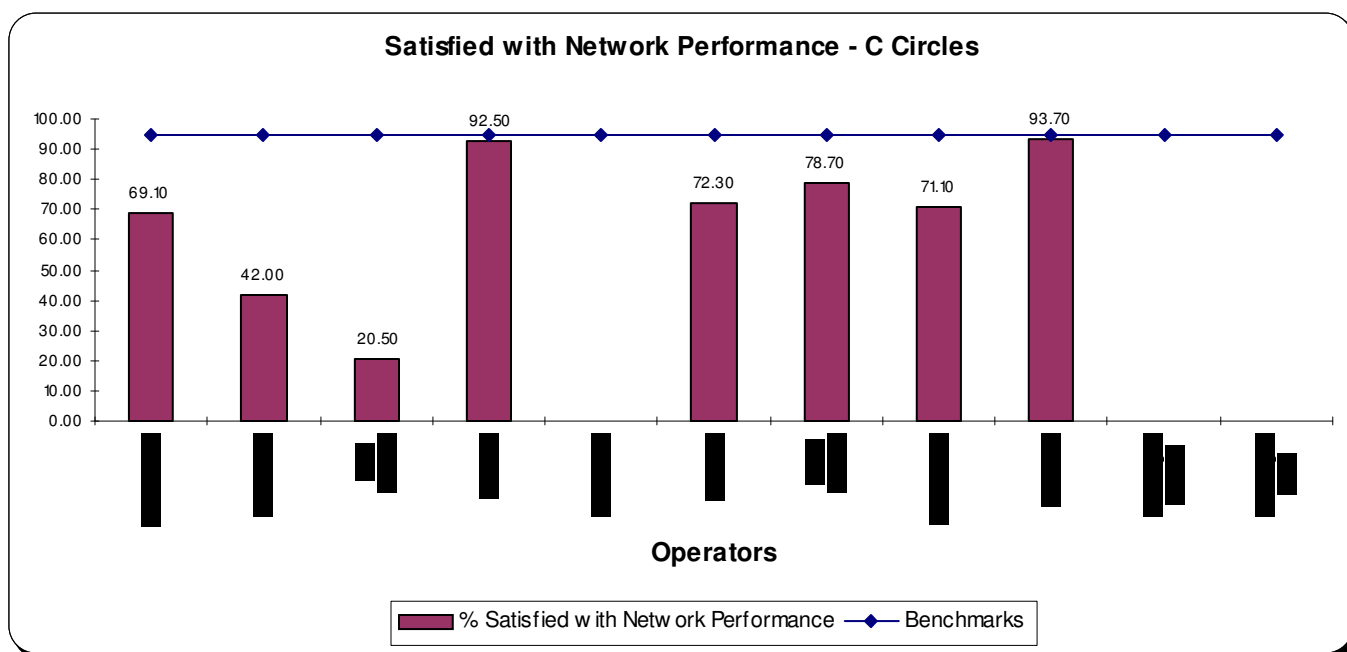
Survey was conducted for 8 operators. all were not meeting the benchmark parameter. HP Reliance had low Subscriber base and Chattisgarh Rel and Chattisgarh BSNL were not covered.



Survey was conducted for 8 operators. Out of those 6 were not meeting the benchmark parameter. HP Reliance had low Subscriber base and Chattisgarh Rel and Chattisgarh BSNL were not covered.



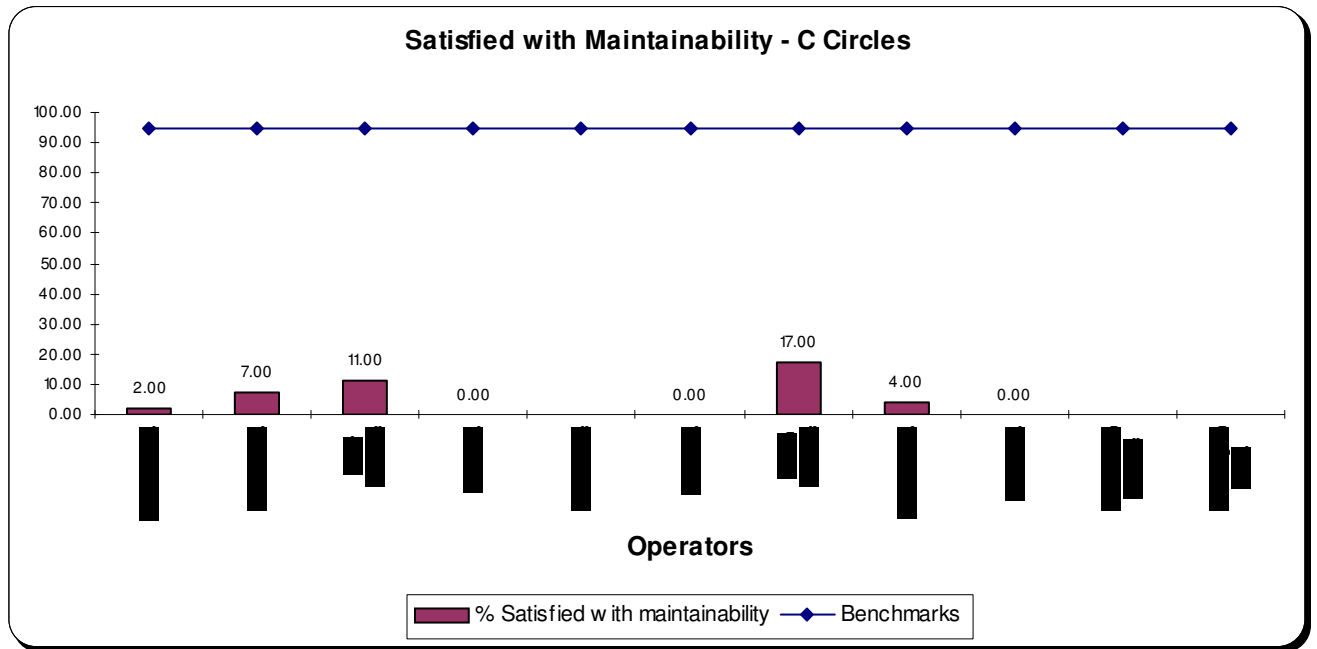
Survey was conducted for 8 operators. Out of those all were not meeting the benchmark parameter HP Reliance had low Subscriber base and Chattisgarh Rel and Chattisgarh BSNL were not covered.



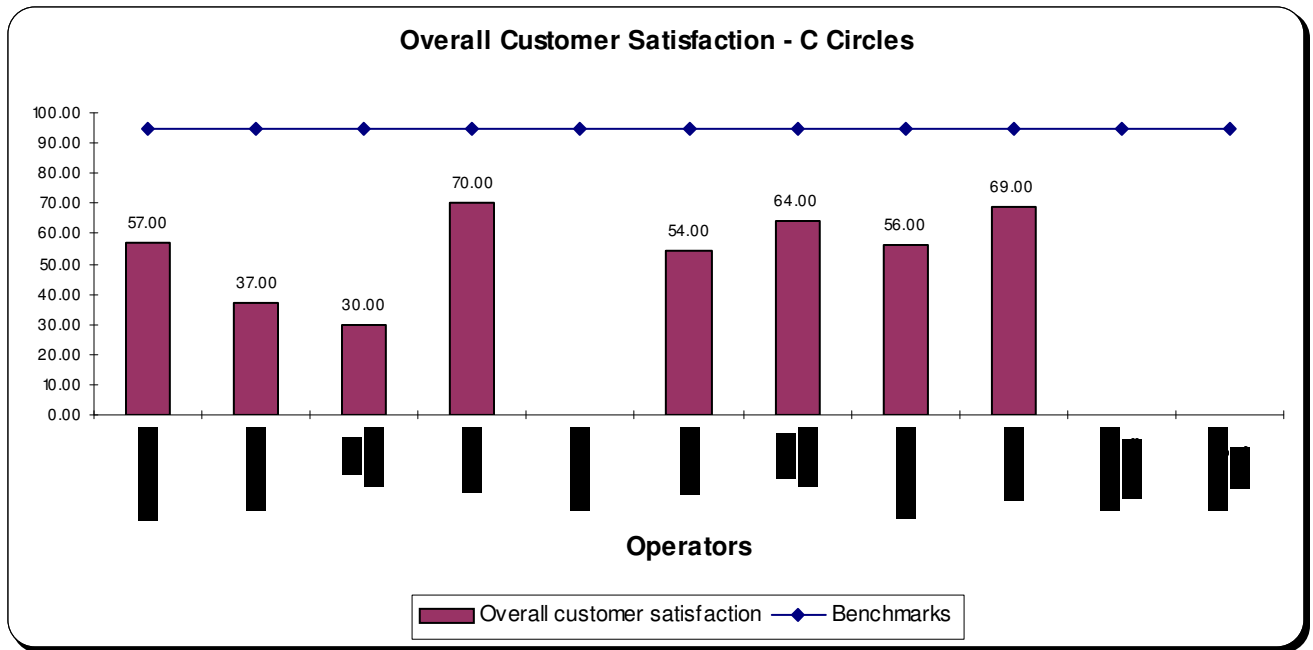


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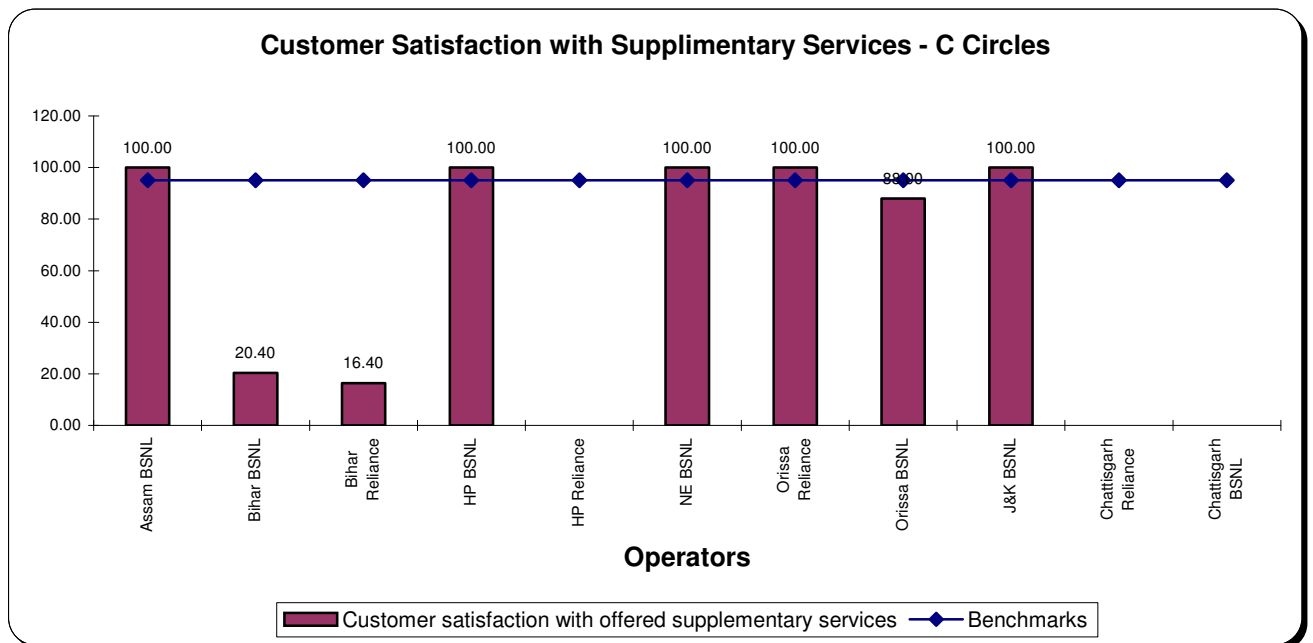
Survey was conducted for 8 operators. Out of those all were not meeting the benchmark parameter HP Reliance had low Subscriber base and Chattisgarh Rel and Chattisgarh BSNL were not covered.



Survey was conducted for 8 operators. Out of those all were not meeting the benchmark parameter HP Reliance had low Subscriber base and Chattisgarh Rel and Chattisgarh BSNL were not covered.



Survey was conducted for 8 operators. Out of those all were not meeting the benchmark parameter. HP Reliance had low Subscriber base and Chattisgarh Rel and Chattisgarh BSNL were not covered.



Survey was conducted for 8 operators. Out of these 3 were not meeting the benchmark parameter. HP Reliance had low Subscriber base and Chattisgarh Rel and Chattisgarh BSNL were not covered.



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4.5 Comparison with PMR Data

Details as per Annexure - 1

4.6 General Findings

- 1.** During the audit of BSNL(UP-W) The call centre data was not provided to auditor .
- 2.** In the drive test report of Reliance info(UP-E) in Lucknow the Blocked call Rate was changed from the actual value.
- 3.** The billing complains details of Hutch-Haryana were not actual. In the complain details it was found that a customer (Mr. Kapil, 9813021000, complain no-131538874) was given an adjustment of Rs214 but in the bill of March-06 it was verified that no such adjustment was given to the customer. It was found an adjustment was given in the month of Jan-06 although the complain was registered on dt:08-02-06.



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- 4.** Tata Indicom –MP has changed the paging channel attempts from the actual value.
- 5.** Methodology for calculating the Call setup success Rate (CSSR) in case of Reliance Telecom Ltd (RTL)-HP is different from other operators. The calculation for CSSR is measured from a sample of 100 calls attempts during that month.
- 6.** During the Drive test of Airtel –Haryana , in the Keithal city one Call Drop and one Hand over failure was observed and in the Sonepath city 3 Call Drop and 4 Hand over failure was observed. But in the report the same was not mentioned. The signal strength was very poor near Mill gate (periphery of Keithal).
- 7.** The customer care promptness record was not provided to the auditor in Jaunpur BSNL Exchange of UP (E).