
CHAPTER - 4 .

- 4.1 Data Analysis.....**
- 4.2 Developemnt of Model for
Management Information System.....**

4.1 Data Analysis

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Various reports are related and interlined to each other. Collected data from various departments should be represented in such way that it gives meaningful information to the management. Hence each report is studied in detail and it is interpreted with the help of concern department personnel.

The Kolhapur Zilla Sahakari Dudh Utpadak sangh Ltd., collects milk from village level co-operative societies. Individual milk producer's are supplier's to these societies. Initially milk is collected at chilling centre at Gadhinglaj and Bidri. It is chilled transported to Gokul project.

Data collection is done from various department as follows -

1. Daily milk collection - from Procurement department.
2. Milk & Milk products sale - from Marketing department.
3. Milk disposition and milk used for production - from Dairy department.
4. Balance of Finished products - From Finished Products Godown.

Data is collected for each and every stage of milk. But for convenience it is represented in a single format. For testing purpose data is collected, entered and tested for single process cycle i.e. for daily report data is collected for one month, for Monthly report data is collected for one month etc.

To study the trend of development of unions past data is collected for -

1. Yearly Average milk procurement and distribution from 1986 to 1994.
2. Average Milk Products production and sale from 1985 to 1993.
3. Yearly cattle feed production from 1985 to 1994.
4. Yearly cattle feed sale from 1985 to 1994.
5. Yearly cattle feed sale for societies within district and outside district.

Following are the actual figures collected from their records of the organisation.

Kolhapur Zilla Sahakari Dudd Utprodak Sangh Ltd., Kolhapur

Yearly Average Milk Procurement and Distribution
(Figures in Liters)

Year	Proc. Buffelo	Proc. Cow	Total Proc.	Local Buf. Sale	Local Cow	Local Total	Local Proc.	Local Buf. Sale	Local Cow	Local Total	Holsale Buf. Sale	Holsale Cow	Holsale Total	Bombay Buf. Sale	Bombay Cow	Bombay Total	Out St. Buf. Sale	Out St. Cow	Out St. Total	Seprat- ion Buf	Seprat- ion Cow	Seprat- ion Total	
1986-87	114952	31145	146097	18922	0	18922	44628	21607	66235	20130	628	0	0	6394	853	26407	173	0	0	0	0	0	0
1987-88	117467	39725	157192	23663	0	23663	29993	29554	59547	55416	90	0	0	6770	2572	9987	292	0	0	0	0	0	0
1988-89	135776	46932	182708	24885	0	24885	14383	17524	31907	62783	3778	16126	0	16126	7818	14305	20323	2388	0	0	0	0	0
1989-90	156396	55861	212257	26595	0	26595	6505	17939	24444	44319	10315	65462	0	65462	84	18441	28339	658	0	0	0	0	0
1990-91	160949	63995	224944	30183	0	30183	8158	15595	23753	25560	2477	93371	0	93371	2439	25572	14336	5614	0	0	0	0	0
1991-92	194824	79437	274261	34651	0	34651	9556	22138	31694	24144	3323	135503	0	135503	124	22831	13683	11760	0	0	0	0	0
1992-93	240953	87190	328143	37161	0	37161	4305	36536	40841	14462	0	147963	0	147963	0	21091	61520	4667	0	0	0	0	0
1993-94	269906	105854	375760	41854	375	42229	8371	11992	20363	19743	0	172811	35440	208251	0	18477	55618	81510	0	0	0	0	0
*** Total ***	1391723	510139	1901862	237914	375	238289	125899	172885	298784	831557	20611	631236	35440	666676	23629	124142	238213	107062	0	0	0	0	0

Kolhapur Zilla Sahakari Dudd Utpadak Sangh Ltd., Kolhapur

Yearly Average Milk Products Production and Sale
(Figures in M.T.)

Year	Cream Prod.	Cream White sale	White Butter sale	Ghee Prod.	Ghee Prod. per sale	Milk Prod.	Milk Prod. per sale	Shrikh- Amrakha- T. Butter Prod.	Shrikh- Amrakha- T. Butter Prod. and Sale	Hole Milk Prod.	Hole Milk Prod. and Sale
1985-86	602.374	0.000	256.961	258.485	181.000	159.000	374.275	0.200	0.000	0.000	0.000
1986-87	1489.579	87.794	635.268	205.060	361.634	325.990	476.600	646.011	7.115	7.140	0.000
1987-88	830.025	0.500	391.920	105.090	139.720	159.630	503.950	465.020	39.571	38.716	0.000
1988-89	1404.454	4.917	659.640	300.080	376.060	373.707	808.080	606.965	48.240	48.130	0.000
1989-90	1372.049	33.160	640.365	392.260	116.041	115.259	875.875	165.922	53.079	50.918	0.000
1990-91	1066.557	0.004	490.496	139.600	131.154	157.328	685.925	941.080	70.251	67.710	8.917
1991-92	1339.421	0.000	562.132	272.200	349.755	166.012	808.525	749.190	82.828	77.530	15.258
1992-93	3730.151	19.625	1936.052	1093.541	393.053	397.607	2224.079	1056.527	81.370	86.914	19.750
*** Total ***	11034.61	146.000	5572.034	2766.316	2049.217	1855.341	6757.317	4630.931	382.454	377.050	43.975
									42.955	73.013	70.015
											61.675
											33.225

Kolhapur Zilla Sahakari Dudd Utpadak Sangh Ltd., Kolhapur

Yearly Cattifeed Production
(Figures in M.T.)

Cattifeed Type	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
MASH 65KG	4081.799	7862.964	6233.971	6662.670	4994.840	6553.255	5715.079	0.000	0.000
MASH 35KG	0.000	0.000	15.790	304.740	507.570	14.000	0.000	0.000	0.000
PALET 70KG	15856.390	17265.890	18744.590	21303.980	17563.050	2117.962	20028.009	11563.016	0.000
PALET 40KG	0.000	0.000	45.004	497.960	287.000	138.560	4804.024	2381.007	0.000
SU.PALET 70KG	0.000	0.000	106.680	642.570	1661.730	2637.140	1235.075	21245.077	44033.005
SU.MASH 65KG	0.000	0.000	9.290	92.610	0.000	611.095	0.000	3180.083	4738.012
CAPRECTION	0.000	2.995	0.000	0.000	9.905	10.190	0.000	0.000	16.078
SP.PALET 50KG	0.000	0.000	0.000	0.000	310.450	487.900	114.094	0.000	0.000
SP.MASH 50KG	0.000	0.000	0.000	0.000	14.700	14.350	0.000	0.000	0.000
SUPRI.PALET 5KG	0.000	0.000	0.000	0.000	0.000	470.150	754.002	0.000	0.000
SU.MASH 50KG	0.000	0.000	0.000	0.000	0.000	23.150	0.000	0.000	0.000
SUPRI.MASH 70KG	0.000	0.000	0.000	0.000	183.820	0.000	0.000	0.000	0.000
*** Total ***	19858.189	25131.849	25155.325	29504.530	25533.005	13077.752	32850.363	38369.263	48787.095

Kolhapur Zilla Sahakari Duddh Utpadak Sangh Ltd., Kolhapur

Yearly Cattifeed Sale
(Figures in M.T.)

Cattifeed Type	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
WASH 65KG	3950.516	7708.613	6124.958	6449.650	4965.460	6255.402	5997.445	2806.000	0.000
WASH 35KG	0.000	0.000	10.710	289.870	507.000	9.014	0.000	0.000	0.000
PALET 70KG	15920.650	17142.867	18148.660	20877.310	17766.009	21967.502	20973.008	13770.089	0.000
PALET 40KG	0.000	0.000	45.000	481.720	283.000	152.920	0.000	0.000	0.000
SU.PALET 70KG	0.000	0.000	93.030	598.980	1642.820	2611.590	4798.078	20759.082	44487.051
SU.WASH 65KG	0.000	0.000	7.380	84.700	0.000	558.015	1299.082	3153.084	4658.077
CAPRECTION 35kg	0.000	2.860	0.000	0.000	9.590	6.140	0.000	0.000	10.036
SP.PALET 50KG	0.000	0.000	0.000	0.000	310.450	478.850	114.900	0.000	0.000
SP.WASH 50KG	0.000	0.000	0.000	0.000	14.600	10.500	0.000	0.000	0.000
SUPRI.PALET 50kg	0.000	0.000	0.000	0.000	0.000	451.880	765.005	0.000	0.000
SU.WASH 50KG	0.000	0.000	0.000	0.000	0.000	22.500	0.000	0.000	0.000
SUPRI.WASH 70KG	0.000	0.000	0.000	0.000	184.170	0.000	160.615	0.000	0.000
*** Total ***	19871.166	24854.340	24429.738	28782.230	25683.187	32524.313	34108.133	40488.255	49155.164

Kolhapur Zilla Sahakari Duddh Utpadak Sangh Ltd., Kolhapur

Yearly Cattlefeed Sale - Societies, District & Out of Dist.
(Figures in M.T.)

Cattlefeed Type	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
ANNAND PATTERN WORKING SOCIETIES	750.000	754.000	771.000	851.000	916.000	1006.000	1171.000	1327.000	1498.000
TOTAL SOCIETIES	844.000	832.000	872.000	952.000	1017.000	1110.000	1274.000	1430.000	1601.000
TOTAL PRODUCTION	19857.759	25131.849	25155.361	29504.030	25533.270	32277.722	32450.000	39015.000	48788.000
CATT.FACTORY EFF. UTILISATION	66.020	83.080	83.085	98.000	142.000	88.000	89.000	131.000	0.000
TOTAL SALE	19871.166	24754.034	24429.700	18781.530	25553.340	32524.769	39929.000	44955.000	49096.000
WITHIN DISTRICT	11201.091	16196.041	17535.378	21795.085	21114.000	27429.000	39929.000	44308.000	49096.000
OUT OF DISTRICT	8670.075	8557.093	6894.322	6986.445	5383.000	5095.769	0.000	0.000	0.000
AVERAGE SOCIETIES WITHIN DISTRICT	430.000	461.000	465.000	521.000	445.000	524.000	850.000	838.000	795.000
*** Total ***	61690.111	76769.097	76205.846	79489.090	80023.610	100055.260	115692.000	132004.000	150874.000

YEARWISE PHYSICAL PROGRESS OF KOLHAPUR MILK UNION

PARTICULARS	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
FARMERS ORGANISATION													
Functional societies	627	652	693	790	817	832	872	952	1017	1110	1274	1430	1601
Amud Pattern Societies	420	477	566	737	751	754	771	851	916	1006	1171	1327	1498
Producer Members (in '000)	53.27	71.63	109.2	138.35	140.25	127.75	127.75	139.50	139.50	186.1	191.04	282.020	291.72
Annual Buffalo Milk (in lac ltr)	202.28	226.58	295.5	336.79	336.79	429.45	431.65	523.73	450.99	587.99	712.59	862.69	977.71
Annual Cow Milk Proc. (in lac ltr)	102.49	99.92	85.63	82.38	99.82	122.73	149.98	180.62	154.59	233.58	290.66	312.25	384.00
Total Milk Proc (in lac ltr.)	304.77	326.50	381.13	419.15	437.73	552.19	581.53	704.36	605.58	821.04	1003.25	1175.14	1361.71
Av. Milk Proc (in '000 lpd)	83.50	89.45	104.42	115.478	128.18	151.28	159.96	192.96	221.11	224.94	274.26	328.97	373.00
Milktesters distributed	-	-	-	50	87	100	100	-	-	301	297	308	200
Sour milk %	0.65	0.74	0.59	0.53	0.50	0.43	0.44	0.41	0.30	0.34	0.37	0.46	0.38

TECHNICAL INPUT

Mobile Vety. Routes	6	6	8	8	8	9	10	10	12	14	17	21	23
D.C.S. Covered under A. H.	241	246	350	350	548	710	710	710	850	860	895	1261	1305
F.H.D. Vaccinations	3242	11472	23482	88703	55212	57207	91320	60124	42503	75691	71556	54417	41597
First Aid Centre/s	-	-	-	-	259	306	310	317	317	317	317	358	356
Forzen Semen Cetnres	7	9	32	53	68	88	91	121	116	128	142	146	204
A.I. done - Cow	1857	2596	3760	5444	8990	12215	16297	20448	17390	24536	30034	35673	41304
Buffalo	2538	3746	4657	8791	14080	16122	20983	25894	25937	33390	43656	59981	69019
Total	4392	6342	8447	14235	23060	28337	37190	46342	43227	57926	73980	95654	110323
Total A.H. Cases treated (routine + emergency)	37101	52210	48724	44433	43997	25879	55661	59356	53364	103307	108602	166404	211787
Improved Calves Born													
Cows													
Male	87	448	479	694	1365	1417	2469	2962	2550	3600	4073	4901	5663
Female	108	248	307	462	819	1452	2398	2724	2858	3475	3972	4677	5648
Buffalo													
Male	68	408	463	660	1370	2304	3343	3684	4052	4945	5690	6933	9736
Female	98	320	334	451	837	2064	3074	3714	4045	4817	5178	6746	9694
Total	378	1424	1583	2267	4411	7237	11284	13084	13505	16837	18913	23257	30761

YEARWISE PHYSICAL PROGRESS OF KOLIHOR MILK UNION

PARTICULARS 1984-85 1985-86 1986-87 1987-88 1988-89 1989-90 1990-91 1991-92 1992-93 1993-94

Production of Milk

PRODUCTS(In M.T.)	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
1) Cream	--	602.374	1481.34	830.22	1404.93	1379.43	1066.50	1265.64	3737.151	3572.19
2) White Butter	--	256.961	635.266	391.92	660.62	643.93	573.09	600.32	1936.052	1715.50
3) Ghee	--	181.000	361.634	139.72	376.66	116.041	132.005	162.013	393.050	268.99
4) S.M.P.	--	374.275	297.68	503.95	808.880	876.875	687.716	808.525	2192.954	2047.19
5) Shrikhand	--	--	7.73	39.57	48.24	53.79	76.86	98.086	101.14	90.96
6) Table Butter	--	--	--	--	0.98	4.58	10.62	43.558	13.276	24.78
7) V.M.P.	--	--	--	--	--	--	16.1	26.250	19.275	17.78

SALE (In M.T.)

1) Cream	--	--	87.79	0.5	4.197	33.16	4.045	--	17.780	50.67
2) White Butter	--	258.485	205.60	105.09	309.61	476.88	149.37	451.48	1094.74	1906.04
3) Ghee	--	158.99	325.99	159.638	373.707	115.28	132.198	163.732	397.563	287.104
4) S.M.P	--	--	846.11	465.260	606.965	165.92	941.080	749.198	1066.527	1649.92
5) Shrikhand	--	--	7.14	38.727	48.130	50.93	76.08	91.42	107.580	107.12
6) Table Butter	--	--	--	--	--	2.69	9.77	43.82	17.900	18.66
7) V.M.P	--	--	--	--	--	--	11.45	13.5	--	6.95

UTILISATION (In M.T.)

1) Cream	--	602.374	1393.55	828.72	1400.733	1346.27	1066.45	1265.639	3719.371	3403.76
2) White Butter	--	196.28	417.996	144.27	428.28	123.26	325.75	183.63	307.482	444.29
3) S.M.P	--	0.2	0.5	--	3.18	60.12	154.14	64.3	49.11	190.00

PROGRESSIVE STATEMENT

1) Member :										
a) Societies	676	763	778	811	870	945	1090	1174	1298	1437
b) Individual	81	81	81	81	81	80	80	80	80	80
Total	757	844	859	892	951	1025	1169	1254	1378	1517
2) Share Capital(Rs in lacs)	68.54	127.55	140.12	158.99	182.10	202.80	385.45	712.60	1093.26	1155.73
3) Reserve Fund(Rs in lacs)	1.67	1.70	1.92	2.51	3.82	4.17	4.90	5.90	21.13	57.70
4) Other Funds(Rs in lacs)	303.76	339.98	345.38	370.83	386.49	397.47	404.88	418.01	428.87	446.72
5) Turnover(Rs in lacs)	3108.58	3503.59	3274.64	4015.46	5548.84	4470.47	6878.43	11117.33	15013.62	18084.23

Interpretation of collected data

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After detailed study following are the main points observed from data -

1. Rise in Average milk procurement of cow and buffalo from 1986 to 1991 is slow and since 1991 it is fast.
2. Local milk sale has drastically increased after 1991.
3. There is variation in wholesale milk sale.
4. Milk products production and sale has not definite trend.
5. Various new products has been introduced after 1991.
6. Lowest production of cattle feed found in 1990-91 but considerable rise from 1992-93.
7. Average of societies within district for purchasing of cattle feed is increasing yearly where as average of sale for out of district societies has been decreased.

4.2 Development of

Model For Management Information system

In this present study reports are generated considering requirements of -

1. Top level management
2. Middle level management and
3. Lower or operating level management

First of all reports required are divided into three categories depending upon frequency of reports as -

1. Daily reports
2. 10 days reports
3. Monthly reports

The data collected from Kolhapur Zilla Sahakari Dudh Utpadak Sangh has been fed to computer and software is developed using Foxbase and clipper packages.

Data structures are created using Foxbase as contents of the report. Heading are defined in program. Internal totals are generated in program itself. Data for monthly and other cumulative reports is accessed form daily stored data. For comparison with previous year to get excess or shortage data is accessed form previous year data. This provision is made in the program but can be implemented by entering last years data.