



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact factor: 6.078

(Volume 6, Issue 3)

Available online at: www.ijariit.com

Research on variation of market values of residential properties in Erandwane and Prabhat Road in Pune city

Ar. Madhura Kulkarni

madhura.kulkarni141@gmail.com

Shivaji University, Kolhapur, Maharashtra

Shubham Kulkarni

98shubhamk@gmail.com

MIT World Peace University, Pune, Maharashtra

ABSTRACT

Pune, formerly spelled Poona in 1857–1978, is the second largest city in Maharashtra, after Mumbai. It is ninth most populous city in the country with an estimated population of 3.13 million. Pune forms the urban core of the eponymous Pune Metropolitan Region (PMR). The Paper draws attention to the difference in rates between Prabhat Road Area and Erandwane area which is differentiated by mere Karve Road. The conclusions drawn within the report are limited to the area covered around Nal Stop. This study contains the sale transactions and live and licenses agreement of residential properties from the period of year 2012 to end of year 2018.

Keywords— Valuation, Prabhat road, Erandwane, Sale

1. INTRODUCTION

Erandwane and Prabhat Road area are one of the oldest and well-planned areas of the Pune city. The main objective of the above study is to find out the change in market rates of the residential properties off Karve road in the area. The above pocket is known for its peculiarities such as detached bungalows and elite people area. During the pace of time the above picture is changing and the bungalows are changing to residential apartments and societies. The study area is bisected by the Karve Road, one of the important links of the city which connects Kothrud, Warje and Paud road to the old city of Pune, Fergusson college road and Shivajinagar. The scope of work/dissertation is limited to the areas covering Erandwane, Prabhat Road, and partial Law College Road, which are separated by Karve Road.

The data of sale instances has been collected from the official website of State Government(www.igrmaharashtra.gov.in), and the same has been personally verified by inquiries on and off the site with concerned and is considered to be true and correct. The Rental instances data has been collected by verbal inquiries on and off the site with concerned and is considered to be true and correct.

Additionally, inquiries have been made with estate agents in the locality for cross checking the data collected. Out of these all collected data, realistic data is selected for the project work. Out of large data of sale instances collected, genuine six sale instances per year have been selected scattered over the entire study area. And the same have been compared with at least three rental instances of earlier date than the sale instance date and located in the vicinity of these sale instances. In most of the rental transactions security deposits have been paid by the tenants to the owners and while estimating virtual rent, interest on such security deposit have been estimated based on the prevailing interest rates on fixed deposits offered by Nationalized banks. Data of BSE Sensex and NSE NIFTY indices have been collected from respective official web sites. (www.bscindia.com;www.nseindia.com).Data of foreign exchange rate of U.S. Dollar and Gold prices prevailing during the study period have been collected from RBI website. (www.rbi.org.in; www.gold.org)

2. METHODOLOGY

The area of Pune city is 331.3 Sq.km. and we have selected Erandwane and Prabhat Road area which is roughly around 3.99 Sq. Km for the study of this project. The selected area has been divided in 6 main sectors from A to F. The approximate centre of study area is around Abhinav Chowk also known as Nal Stop. The objective to adopt Total Weightage Score System is for comparison of properties.

Appropriate weightages have been adopted for various factors of comparison according to their levels according to the preferences and importance given to each such parameter by the purchasers and the occupants of the residential flats in the study area. The final Weightage Criteria Table (TWS) adopted for the project study based on the personal interviews of purchasers, tenants, builders and developers, estate agents, etc.

The important parameters identified for objective comparison and included in weightage criteria table are as follows:

Parameters	Weightages	Levels				
		5	4	3	2	1
Physical Aspects						
Age of The Building	8	Up to 5 Years	5 To 10 Years	10 To 15 Years	15 To 20 Years	More Than 20 Years
Type of Construction	6	Excellent	Very Good	Good	Moderate	Poor
Elevation of The Building	5	Excellent	Very Good	Good	Moderate	Poor
Provision of Lift	6	Lift with Backup	Lift			No Lift
Provision of Parking	9	Covered Parking		Open Parking		No Parking
Width of The Abutting Road	7	24m	18m	12m	9m	6m
Security	6	CCTV	Intercom	Day & Night Time	Day/Night Time	No Watchmen
Fire Alarm	4	Yes				No
Piped Gas	4	Yes				No
Rain Water Harvesting	4	Yes				No
Waste Disposal Management	4	Yes				No
Architectural Aspects						
Area Of The Flat	10	Above 115 Sqm	96 To 115 Sqm	76 To 95 Sqm	56 To 75 Sqm	35 To 55 Sqm
Floor On Which It Is Situated?	6	5TH AND ABOVE	4TH	3RD	2ND	1ST FLR
Arrangement and Sizes Of Rooms	6	Excellent	Very Good	Good	Moderate	Poor
Amenities and Specifications	5	Excellent	Very Good	Good	Moderate	Poor
Environmental Aspect						
Vista from The Property	5	Excellent	Very Good	Good	Moderate	Poor
Locational Aspects						
Distance from The Main Road (Karve Road)	6	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Proximity to Hospital	5	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Proximity to Market Place	5	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Proximity to School	5	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Proximity to Banks	4	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Proximity to Entertainment Centres	4	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Proximity to College	4	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Proximity to Petrol Pump	4	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Proximity to Hotels/Eateries	5	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Proximity to Malls	4	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Proximity to Drama Theatres	4	< 200m	200 To 400m	400 To 600m	600 To 800m	< 1000m
Legal/Miscellaneous Aspects						
Ownership Title	6	Single	Double			Joint
Reputation of The Builder	4	Excellent	Best	Good	Fair	Poor
Locality	5	Posh	Modern	Best	Good	Fair

Multiplication of weightage assigned to a factor of comparison and its level indicates weightage score of that particular aspect or character. The summation of weightage scores of all the factors of comparison gave the Total Weightage Score (T.W.S.) of each of the properties involved in the instances of sales or rentals.

The table of T.W.S. estimated for rental instances and sale instances selected for the study. Gross rent fetching capacity of each flat under sale instance has been ascertained after comparing it with at least three rental instances in the vicinity and which are let-out before the sale transaction taking into consideration its T.W.S. and net rent fetching capacity is estimated by deducting outgoings towards property tax, repairs and maintenance charges, society charges etc. from estimated gross rental income of each property under sale instance.

Outgoings from gross rent have been considered as given below:

In the study area, usually the owner bears the annual property tax, repairs and maintenance of the flat, society maintenance charges etc. and the tenant has to only bear the cost of electricity as per actual bill based on consumption. Gross Annual Rental Income for each sale instance property is estimated by multiplying estimated monthly fair rent by 12.

Considering all above points, total outgoings which are to borne by owner while renting any flat, work out to about 15% of gross annual rental income for old buildings whereas for the buildings maintained in good condition total outgoings work out to about 10% and the same have been considered accordingly in the project study.

Net Annual Rental Income of the residential flat under sale instance is estimated after deducting above said 10% or 15% outgoings from the Gross Annual Rental Income, considering the age of the building. Economical life of the buildings is considered as eighty years only and hence Y.P. is calculated by single rate system, where the income is uninterrupted for the entire economical life of the building or flat. The rate of net rent fetching capacity of sale instance flats in terms of rent ₹./Sq.m/month is calculated by dividing the net estimated annual rental income by 12 months and also by the built-up area of the flat.

And Y.P. is calculated by using the formula,

$$Y.P = \frac{\text{True transaction value paid for purchase of the flat}}{\text{Estimated annual rental income from the flat}}$$

And ROI is calculated by using the following formula,

$$\text{Rate of Interest} = \frac{100}{Y.P}$$

All rental instances selected have been marked on the sales plan in Green colour as per following legend.

Rent in ₹ Per month per Sqm	Area of flat in Sqm.
T.W.S.	Date of let out

Similarly, all the sale instances selected have been marked on the sales plan in Blue colour as per following legend.

Estimated Rent ₹ Per month per Sqm	Area of flat in Sqm.
T.W.S.	Date of transaction

3. RESULTS

SALES ANALYSIS

Sales Instance No.	Date of Transaction	Area of flat in Sq. m.	RR price in ₹	Consideration amount in ₹	TWS	Estimated Rate of Rent Per Square meter per month in ₹	Gross Rent per annum in ₹	% Outgoing	Annual Outgoing in ₹	Net Annual Income	Years Purchase (Y.P.)	Rate of Interest in %
S1	10-07-2012	84.72	4856879	6000000	420	213	216544	15	32482	184063	33	3.07
S2	21-09-2012	92	4000000	9000000	597	263	290352	9	26132	264220	34	2.94
S3	13-12-2012	53	9200000	5200000	499	260	165360	14	23150	142210	37	2.73
S4	14-12-2012	85	7000000	10440000	512	334	340680	10	34068	306612	34	2.94
S5	28-12-2012	80.36	6716710	7500000	487	217	209257	14	29296	179961	42	2.40
S6	03-08-2013	76.36	7616325	9000000	538	250	229080	14	32071	197009	46	2.19
S7	07-10-2013	64.2	6058364	7700000	509	378	291211	15	43682	247530	31	3.21
S8	06-11-2013	55.84	4756987	5400000	395	212	142057	14	19888	122169	44	2.26
S9	09-11-2013	54.32	2864523	5145000	480	276	179908	15	26986	152922	34	2.97
S10	16-11-2013	89.21	9025850	9500000	460	235	251572	14	35220	216352	44	2.28
S11	31-07-2014	130.99	13256894	15000000	646	234	367820	9	33104	334716	45	2.23
S12	15-10-2014	80	6532658	9170000	459	334	320640	15	48096	272544	34	2.97
S13	26-11-2014	48	3234000	4700000	405	246	141696	15	21254	120442	39	2.56
S14	09-12-2014	113	10371425	11000000	569	224	303744	14	42524	261220	42	2.37
S15	21-12-2014	82.25	5083260	7100000	557	280	276360	14	38690	237670	30	3.35
S16	21-12-2014	92.81	12658795	13500000	487	466	518994	15	77849	441144	31	3.27
S17	01-12-2015	73.46	5028709	8500000	516	252	222143	14	31100	191043	44	2.25
S18	22-12-2015	62.61	9386130	10500000	545	263	197597	9	17784	179813	58	1.71
S19	24-12-2015	117	18100000	23500000	573	359	504036	10	50404	453632	52	1.93
S20	28-12-2015	80.3	6248965	7000000	497	232	223555	14	31298	192257	36	2.75

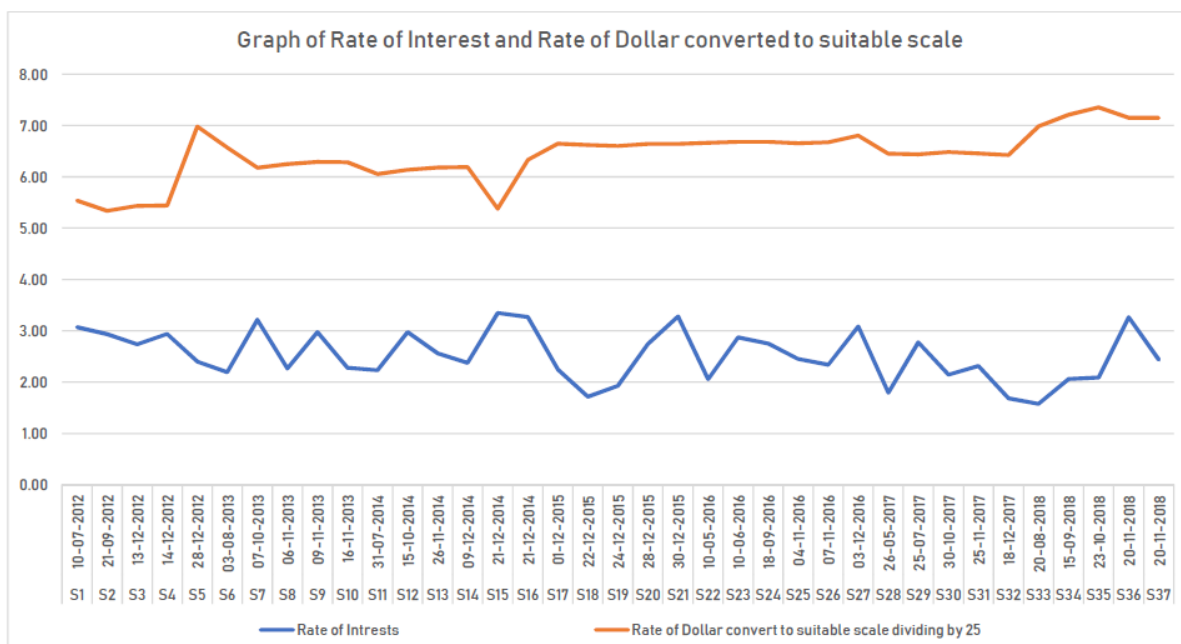
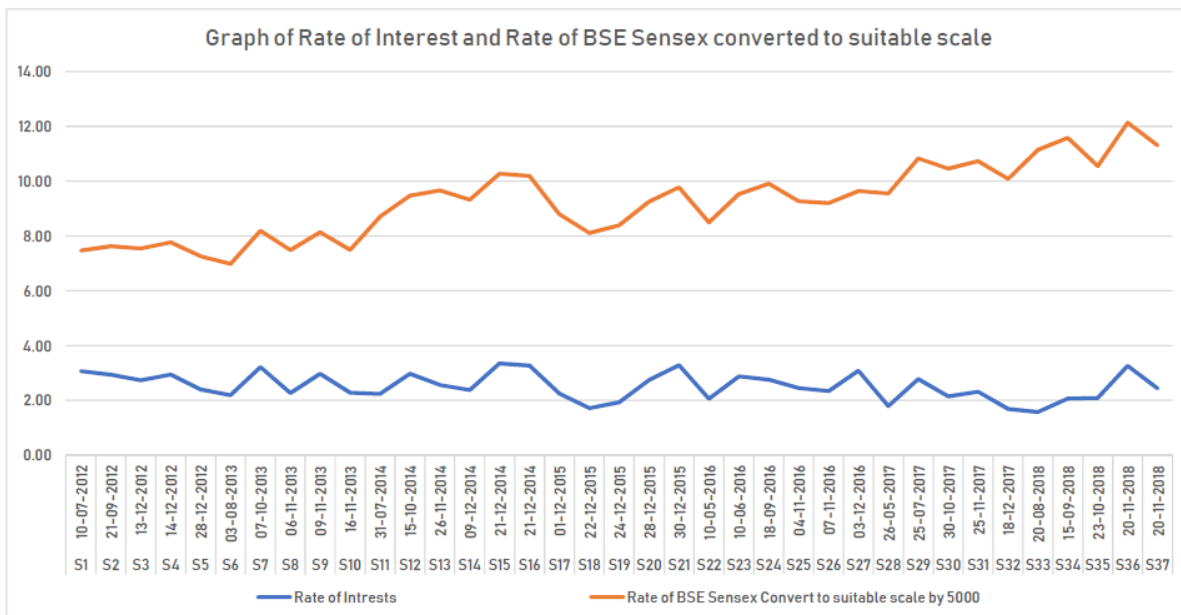
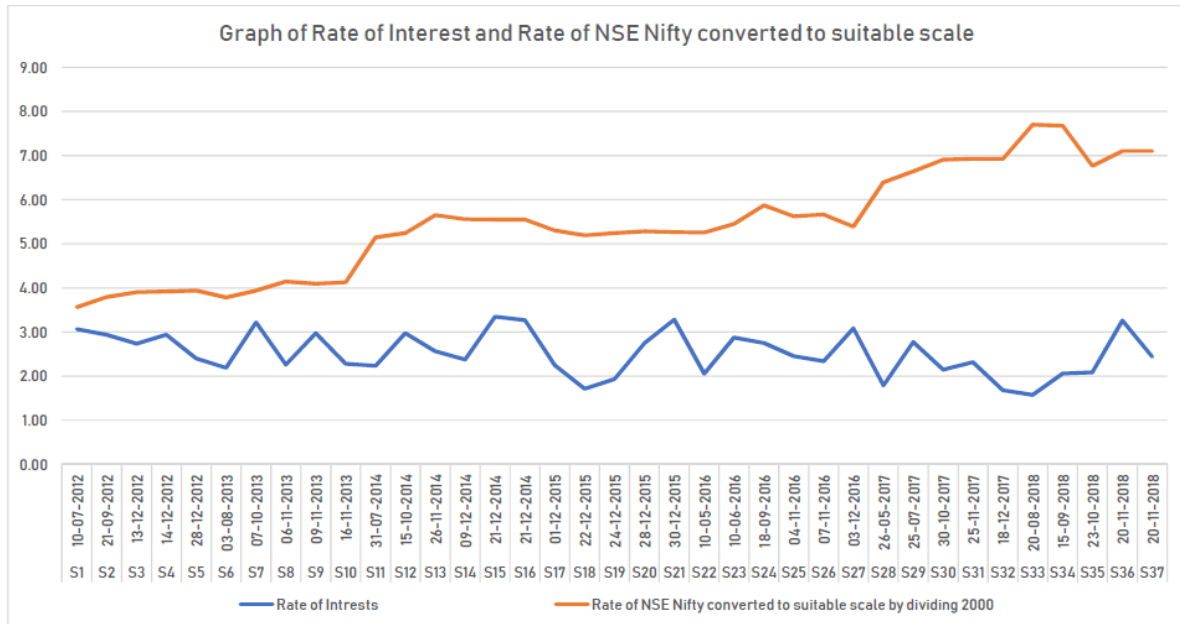
SALES ANALYSIS

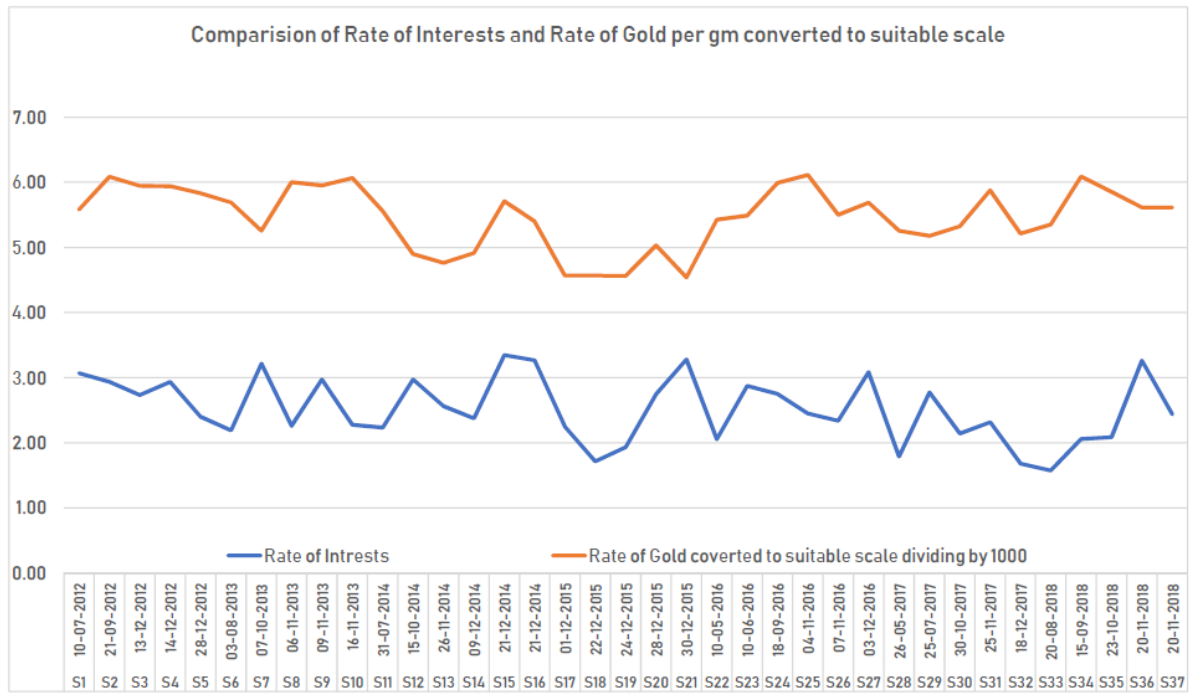
Sales Instance No.	Date of Transaction	Area of flat in Sq. m.	RR price in ₹	Consideration amount in ₹	TWS	Estimated Rate of Rent Per Square meter per month in ₹	Gross Rent per annum in ₹	% Outgoing	Annual Outgoing in ₹	Net Annual Income	Years Purchase (Y.P.)	Rate of Interest in %
S21	30-12-2015	87	6796170	7500000	581	259	270396	9	24336	246060	30	3.28
S22	10-05-2016	129.69	12242920	15450000	519	240	373507	15	56026	317481	49	2.05
S23	10-06-2016	128	12252011	15000000	499	330	506880	15	76032	430848	35	2.87
S24	18-09-2016	120	2991657	10000000	611	210	302400	9	27216	275184	36	2.75
S25	04-11-2016	68	9053698	9500000	496	317	258672	10	25867	232805	41	2.45
S26	07-11-2016	73.67	7010083	7600000	607	221	195373	9	17584	177789	43	2.34
S27	03-12-2016	91.95	5524659	6000000	421	195	215163	14	30123	185040	32	3.08
S28	26-05-2017	104	12165003	13000000	537	205	255840	9	23026	232814	56	1.79
S29	25-07-2017	73.57	4200000	6400000	597	221	195108	9	17560	177548	36	2.77
S30	30-10-2017	105.38	6850824	10500000	504	207	261764	14	36647	225117	47	2.14
S31	25-11-2017	97.18	9700000	11000000	489	240	279878	9	25189	254689	43	2.32
S32	18-12-2017	86.4	4384230	13000000	481	245	254016	14	35562	218454	60	1.68
S33	20-08-2018	114	16887046	17000000	534	215	294120	9	26471	267649	64	1.57
S34	15-09-2018	49.8	7009000	7300000	522	296	176890	15	26533	150356	49	2.06
S35	23-10-2018	90.5	10472437	12500000	598	264	286704	9	25803	260901	48	2.09
S36	20-11-2018	91	7880327	8000000	524	278	303576	14	42501	261075	31	3.26
S37	20-11-2018	51.09	6178956	6500000	457	284	174115	9	15670	158444	41	2.44

STATEMENT SHOWING ESTIMATED RATE OF RENT, YP AND ROI YEILDED BY SALE INSTANCES ALONG WITH GOLD PRICES, USD, BSE SENSEX, NSE NIFTY AND CPI% DURING STUDY PERIOD

SALES INSTANCE NO.	DATE OF TRANSACTION	ESTIMATED RATE OF RENT IN RS. PER SQ.M PER MONTH	Y.P	Rate of Intrests	Rate of Gold per gm	Covert ed to suitable scale dividing by 500	Rate of Dollar in Rs.	Conve rt to suitable scale dividin g by 10	Rate of BSE SENSEX	Conve rt to suitable scale by 4000	Rate of NSE NIFTY	Conve rted to suitable scale by dividin g 1500	CPI %
S1	10-07-2012	₹ 213.00	33	3.07	₹ 2,790.43	5.58	₹ 55.38	5.54	₹ 17,618.35	4.40	₹ 5,345.35	3.56	1.92
S2	21-09-2012	₹ 263.00	34	2.94	₹ 3,041.97	6.08	₹ 53.39	5.34	₹ 18,752.83	4.69	₹ 5,691.15	3.79	0.93
S3	13-12-2012	₹ 260.00	37	2.73	₹ 2,972.27	5.94	₹ 54.33	5.43	₹ 19,229.26	4.81	₹ 5,851.50	3.90	0.46
S4	14-12-2012	₹ 334.00	34	2.94	₹ 2,968.94	5.94	₹ 54.42	5.44	₹ 19,317.25	4.83	₹ 5,879.60	3.92	0.46
S5	28-12-2012	₹ 217.00	42	2.40	₹ 2,915.47	5.83	₹ 69.79	6.98	₹ 19,444.84	4.86	₹ 5,908.35	3.94	0.91
S6	03-08-2013	₹ 250.00	46	2.19	₹ 2,845.00	5.69	₹ 65.71	6.57	₹ 19,164.02	4.79	₹ 5,677.90	3.79	0.85
S7	07-10-2013	₹ 378.00	31	3.21	₹ 2,626.89	5.25	₹ 61.80	6.18	₹ 19,895.10	4.97	₹ 5,906.15	3.94	1.26
S8	06-11-2013	₹ 212.00	44	2.26	₹ 3,001.00	6.00	₹ 62.49	6.25	₹ 20,894.94	5.22	₹ 6,215.15	4.14	0.83
S9	09-11-2013	₹ 276.00	34	2.97	₹ 2,976.00	5.95	₹ 62.91	6.29	₹ 20,666.15	5.17	₹ 6,140.75	4.09	0.83
S10	16-11-2013	₹ 235.00	44	2.28	₹ 3,033.00	6.07	₹ 62.85	6.29	₹ 20,850.74	5.21	₹ 6,189.00	4.13	-1.7
S11	31-07-2014	₹ 234.00	45	2.23	₹ 2,780.00	5.56	₹ 60.56	6.06	₹ 25,894.97	6.47	₹ 7,721.30	5.15	0.4
S12	15-10-2014	₹ 334.00	34	2.97	₹ 2,449.05	4.90	₹ 61.38	6.14	₹ 25,999.34	6.50	₹ 7,864.00	5.24	0
S13	26-11-2014	₹ 246.00	39	2.56	₹ 2,381.58	4.76	₹ 61.80	6.18	₹ 28,386.19	7.10	₹ 8,475.75	5.65	0
S14	09-12-2014	₹ 224.00	42	2.37	₹ 2,456.95	4.91	₹ 61.88	6.19	₹ 27,797.01	6.95	₹ 8,340.70	5.56	0
S15	21-12-2014	₹ 280.00	30	3.35	₹ 2,855.00	5.71	₹ 53.78	5.38	₹ 27,701.79	6.93	₹ 8,324.00	5.55	0
S16	21-12-2014	₹ 466.00	31	3.27	₹ 2,700.00	5.40	₹ 63.35	6.33	₹ 27,701.79	6.93	₹ 8,324.00	5.55	0
S17	01-12-2015	₹ 252.00	44	2.25	₹ 2,283.87	4.57	₹ 66.46	6.65	₹ 26,169.41	6.54	₹ 7,954.90	5.30	0
S18	22-12-2015	₹ 263.00	58	1.71	₹ 2,283.47	4.57	₹ 66.21	6.62	₹ 25,590.65	6.40	₹ 7,786.10	5.19	0
S19	24-12-2015	₹ 359.00	52	1.93	₹ 2,280.10	4.56	₹ 66.02	6.60	₹ 25,838.71	6.46	₹ 7,861.05	5.24	0
S20	28-12-2015	₹ 232.00	36	2.75	₹ 2,515.00	5.03	₹ 66.42	6.64	₹ 26,034.13	6.51	₹ 7,925.15	5.28	0

SALES INSTANCE NO.	DATE OF TRANSACTION	ESTIMATED RATE OF RENT IN RS. PER SQ.M PER MONTH	Y.P	Rate of Intrests	RATE of Gold per gm	Covert ed to suitable scale dividing by 500	Rate of Dollar in Rs.	Conve rt to suitable scale dividin g by 10	Rate of BSE SENSEX	Conve rt to suitable scale by 4000	Rate of NSE NIFTY	Conve rted to suitable scale by dividin g 1500	CPI %
S21	30-12-2015	₹ 259.00	30	3.28	₹ 2,269.08	4.54	₹ 66.41	6.64	₹ 25,960.03	6.49	₹ 7,896.25	5.26	0
S22	10-05-2016	₹ 240.00	49	2.05	₹ 2,712.85	5.43	₹ 66.61	6.66	₹ 25,772.53	6.44	₹ 7,887.80	5.26	1.48
S23	10-06-2016	₹ 330.00	35	2.87	₹ 2,743.67	5.49	₹ 66.82	6.68	₹ 26,635.75	6.66	₹ 8,170.05	5.45	0.73
S24	18-09-2016	₹ 210.00	36	2.75	₹ 2,994.36	5.99	₹ 66.83	6.68	₹ 28,634.50	7.16	₹ 8,808.40	5.87	0.36
S25	04-11-2016	₹ 317.00	41	2.45	₹ 3,056.00	6.11	₹ 66.53	6.65	₹ 27,274.15	6.82	₹ 8,433.75	5.62	-0.4
S26	07-11-2016	₹ 221.00	43	2.34	₹ 2,749.62	5.50	₹ 66.76	6.68	₹ 27,458.99	6.86	₹ 8,497.05	5.66	-0.4
S27	03-12-2016	₹ 195.00	32	3.08	₹ 2,843.00	5.69	₹ 68.05	6.81	₹ 26,230.66	6.56	₹ 8,086.80	5.39	-0.4
S28	26-05-2017	₹ 205.00	56	1.79	₹ 2,627.89	5.26	₹ 64.50	6.45	₹ 31,028.21	7.76	₹ 9,595.10	6.40	0.72
S29	25-07-2017	₹ 221.00	36	2.77	₹ 2,588.35	5.18	₹ 64.38	6.44	₹ 32,228.27	8.06	₹ 9,964.55	6.64	0
S30	30-10-2017	₹ 207.00	47	2.14	₹ 2,661.40	5.32	₹ 64.84	6.48	₹ 33,266.16	8.32	₹ 10,363.65	6.91	0.35
S31	25-11-2017	₹ 240.00	43	2.32	₹ 2,938.00	5.88	₹ 64.56	6.46	₹ 33,679.24	8.42	₹ 10,389.70	6.93	-0.7
S32	18-12-2017	₹ 245.00	60	1.68	₹ 2,604.90	5.21	₹ 64.24	6.42	₹ 33,601.68	8.40	₹ 10,388.75	6.93	0.7
S33	20-08-2018	₹ 215.00	64	1.57	₹ 2,675.47	5.35	₹ 69.85	6.99	₹ 38,278.75	9.57	₹ 11,551.75	7.70	0
S34	15-09-2018	₹ 296.00	49	2.06	₹ 3,043.57	6.09	₹ 72.11	7.21	₹ 38,090.64	9.52	₹ 11,515.20	7.68	0.33
S35	23-10-2018	₹ 264.00	48	2.09	₹ 2,926.38	5.85	₹ 73.55	7.36	₹ 33,847.23	8.46	₹ 10,146.80	6.76	0
S36	20-11-2018	₹ 278.00	31	3.26	₹ 2,805.48	5.61	₹ 71.50	7.15	₹ 35,474.51	8.87	₹ 10,656.20	7.10	-0.3
S37	20-11-2018	₹ 284.00	41	2.44	₹ 2,805.48	5.61	₹ 71.50	7.15	₹ 35,474.51	8.87	₹ 10,656.20	7.10	-0.3





4. CONCLUSION

11.1.1 The Rate of Interest yielded by residential flats located in the study area shows a stable trend without any noticeable rise and fall in succeeding years during the study period 2012 to 2018. Observed range of rate of interests yielded by residential properties in each year is as follows,

- Year 2012: - 2.40% to 3.07%
- Year 2013: - 2.19% to 3.21%
- Year 2014: - 2.23% to 3.35%
- Year 2015: - 1.71% to 3.28%
- Year 2016: - 2.05% to 3.08%
- Year 2017: -1.68% to 2.77%
- Year 2018: - 1.57% to 3.26%

The net rent of residential flats in study area during year 2012 to 2018 is observed to be varying as shown below,

- Year 2012: - ₹ 213.00 per Sqm per month to ₹ 334.00 per Sqm per month.
- Year 2013: - ₹ 212.00 per Sqm per month to ₹ 378.00 per Sqm per month.
- Year 2014: - ₹ 234.00 per Sqm per month to ₹ 466.00 per Sqm per month.
- Year 2015: - ₹ 232.00 per Sqm per month to ₹ 263.00 per Sqm per month.
- Year 2016: - ₹ 195.00 per Sqm per month to ₹ 330.00 per Sqm per month.
- Year 2017: - ₹ 205.00 per Sqm per month to ₹ 245.00 per Sqm per month.
- Year 2018: - ₹ 215.00 per Sqm per month to ₹ 296.00 per Sqm per month.

Graph of rate of interest yielded by residential flats in the study area and the BSE show converging trend during fall of rates period and diverging trend during the rise period. Graph of rate of interest yielded by residential flats in the study area and the Gold rate are observed to be running parallel. US Dollar has a drastic rise in 2012. Later from 2013 to 2018, it saw a steady rise. The US Dollar is inversely proportional to rate of interest yielded by residential flats. By contemplating earlier study data, we can calculate rent fetching capacity of the study area. The rent fetching capacity of Erandwane for small flats is ₹20,000 while for large flats it is ₹24,500 for the current trend. It may rise up to ₹38,500 in some elite areas.

5. REFERENCES

- [1] www.bscindia.com
- [2] www.nseindia.com
- [3] www.rbi.org.in
- [4] www.gold.org
- [5] Wikipedia.com