Table. Quality evaluation of the results of Xie method on the *HSim-data*.

IMG	MSE	PSNR	MSE3	PSNR3	SSIM	MSSIM	VSNR	VIFP	UQI	NQM	WSNR
IMD153	379.409	22.340	518.029	20.987	0.959	0.828	2.294	0.699	0.903	1.503	16.346
IMD154	500.629	21.136	688.502	19.752	0.941	0.798	1.979	0.641	0.863	3.008	14.577
ISIC_0000000	309.393	23.226	456.053	21.541	0.956	0.875	11.186	0.662	0.899	5.579	18.060
ISIC_0000008	393.369	22.183	542.918	20.783	0.950	0.855	10.231	0.627	0.899	3.098	18.025
ISIC_0000013	487.973	21.247	663.802	19.910	0.934	0.851	12.796	0.536	0.880	4.659	17.797
ISIC_0000016	461.090	21.493	699.369	19.684	0.963	0.804	8.808	0.472	0.880	3.494	17.423
ISIC_0000026	187.121	25.410	265.169	23.896	0.970	0.895	3.650	0.621	0.923	1.447	19.564
ISIC_0000028	197.238	25.181	270.084	23.816	0.956	0.882	10.215	0.697	0.918	6.520	20.643
ISIC_0000038	212.927	24.848	308.874	23.233	0.966	0.886	11.091	0.660	0.914	7.412	20.400
ISIC_0000040	184.397	25.473	295.277	23.429	0.977	0.874	3.327	0.562	0.923	2.318	19.575
ISIC_0000047	251.367	24.128	360.934	22.557	0.962	0.864	8.518	0.564	0.905	5.382	19.536
ISIC_0000049	214.290	24.821	294.980	23.433	0.969	0.901	8.532	0.761	0.930	6.233	19.891
ISIC_0000051	144.141	26.543	203.349	25.048	0.979	0.917	9.087	0.767	0.941	5.725	21.661
ISIC_0000087	222.617	24.655	310.987	23.203	0.979	0.900	9.792	0.750	0.937	2.962	20.062
ISIC_0000089	191.538	25.308	258.201	24.011	0.981	0.916	8.312	0.751	0.947	7.281	20.966
ISIC_0000096	164.330	25.974	236.750	24.388	0.985	0.917	3.736	0.818	0.950	2.842	21.224
ISIC_0000105	245.048	24.238	323.699	23.029	0.974	0.896	4.353	0.811	0.958	5.519	19.239
ISIC_0000109	194.902	25.233	282.975	23.613	0.982	0.914	7.440	0.829	0.949	4.834	20.491
ISIC_0000120	160.326	26.081	217.624	24.754	0.978	0.921	12.714	0.822	0.953	5.766	21.821
ISIC_0000124	161.333	26.054	230.565	24.503	0.983	0.926	9.588	0.857	0.957	7.256	21.096
ISIC_0000141	116.362	27.473	157.855	26.148	0.982	0.928	7.770	0.791	0.955	7.209	22.129
ISIC_0000142	161.904	26.038	226.137	24.587	0.980	0.933	13.861	0.841	0.954	7.834	21.766
ISIC_0000143	94.537	28.375	125.323	27.151	0.987	0.943	10.493	0.852	0.963	6.773	23.925
ISIC_0000165	624.997	20.172	897.212	18.602	0.957	0.811	8.831	0.646	0.885	4.681	16.591
ISIC_0000172	483.647	21.286	698.140	19.691	0.961	0.867	9.105	0.702	0.902	4.576	16.314
ISIC_0000175	984.882	18.197	1.352.941	16.818	0.916	0.776	14.621	0.576	0.870	1.818	15.997
ISIC_0000184	391.069	22.208	580.441	20.493	0.966	0.848	9.115	0.711	0.903	4.434	17.907
ISIC_0000189	127.915	27.062	216.156	24.783	0.983	0.934	10.385	0.838	0.950	5.863	22.246
ISIC_0000205	208.220	24.946	308.371	23.240	0.978	0.920	16.050	0.830	0.944	7.626	21.365

ISIC_0000211	543.060	20.782	763.818	19.301	0.963	0.805	8.075	0.646	0.894	2.904	17.068
ISIC_0000213	1.327.106	16.902	1.849.672	15.460	0.911	0.780	9.989	0.523	0.835	1.267	13.578
ISIC_0000226	395.279	22.162	580.321	20.494	0.964	0.866	8.739	0.688	0.899	3.047	17.140
ISIC_0000230	266.969	23.866	421.690	21.881	0.961	0.865	10.453	0.728	0.898	3.812	18.977
ISIC_0000233	363.902	22.521	594.751	20.387	0.961	0.867	8.446	0.747	0.908	5.828	16.846
ISIC_0000236	218.886	24.729	299.558	23.366	0.961	0.892	13.979	0.688	0.913	5.266	20.878
ISIC_0000246	327.187	22.983	458.671	21.516	0.939	0.790	1.306	0.498	0.873	1.176	17.428
ISIC_0000257	244.908	24.241	326.325	22.994	0.966	0.854	1.574	0.528	0.911	1.219	17.999
ISIC_0000261	366.870	22.486	496.740	21.170	0.944	0.850	1.913	0.562	0.897	1.791	16.972
ISIC_0000344	774.265	19.242	1.087.451	17.767	0.946	0.749	4.432	0.633	0.869	1.130	14.798
ISIC_0000384	93.954	28.402	128.746	27.033	0.977	0.928	5.460	0.628	0.954	7.352	22.704
ISIC_0000385	104.893	27.923	145.125	26.513	0.987	0.945	10.509	0.776	0.965	9.326	23.565
ISIC_0000410	138.029	26.731	186.638	25.421	0.975	0.923	3.274	0.690	0.953	3.516	21.231
ISIC_0000412	132.818	26.898	182.016	25.530	0.982	0.929	7.433	0.777	0.956	6.186	22.470
ISIC_0000416	90.680	28.556	124.279	27.187	0.983	0.940	7.267	0.790	0.963	10.106	22.896
ISIC_0000421	75.054	29.377	96.893	28.268	0.988	0.950	7.784	0.833	0.964	9.611	23.570
ISIC_0000423	73.868	29.446	103.927	27.964	0.990	0.950	14.052	0.809	0.964	11.157	24.229
ISIC_0000426	69.715	29.698	96.594	28.281	0.986	0.950	18.155	0.830	0.961	15.034	25.871
ISIC_0000453	57.942	30.501	76.730	29.281	0.990	0.950	6.775	0.769	0.964	8.919	24.174
ISIC_0000454	84.121	28.882	110.269	27.706	0.986	0.943	5.555	0.757	0.961	5.369	22.573
ISIC_0000455	100.074	28.128	132.417	26.911	0.985	0.941	7.232	0.710	0.960	5.434	22.277
ISIC_0000457	326.673	22.990	438.561	21.711	0.964	0.831	4.594	0.653	0.910	1.158	17.367
ISIC_0000461	212.551	24.856	290.095	23.505	0.962	0.870	2.826	0.635	0.912	1.807	18.807
ISIC_0000466	521.131	20.961	700.620	19.676	0.940	0.793	5.056	0.542	0.878	1.731	16.037
ISIC_0000474	324.576	23.018	448.956	21.609	0.947	0.809	4.121	0.548	0.875	1.790	16.901
ISIC_0000478	258.313	24.009	362.225	22.541	0.962	0.828	3.394	0.620	0.902	1.346	18.408
ISIC_0000482	257.857	24.017	353.589	22.646	0.950	0.859	7.470	0.641	0.912	3.865	18.778
ISIC_0000503	209.160	24.926	297.527	23.396	0.961	0.877	5.627	0.644	0.913	3.655	19.156
ISIC_0000515	230.904	24.496	319.787	23.082	0.962	0.863	5.165	0.649	0.917	2.274	18.865
ISIC_0000530	485.713	21.267	663.041	19.915	0.948	0.785	2.272	0.517	0.874	1.289	16.325
ISIC_0000537	417.665	21.923	588.537	20.433	0.955	0.818	1.184	0.665	0.892	0.737	16.017
ISIC_0000539	766.962	19.283	1.048.439	17.925	0.946	0.812	9.525	0.564	0.868	0.933	15.670

ISIC_0000541	320.718	23.070	456.560	21.536	0.952	0.818	4.140	0.550	0.859	2.174	17.021
ISIC_0000556	502.780	21.117	681.041	19.799	0.955	0.828	7.891	0.673	0.901	1.877	16.696
ISIC_0001185	74.560	29.406	102.150	28.038	0.989	0.952	8.871	0.731	0.963	10.788	24.225
ISIC_0001367	133.624	26.872	178.550	25.613	0.985	0.926	5.338	0.730	0.951	6.412	21.954
ISIC_0001372	152.411	26.301	208.325	24.943	0.985	0.925	5.338	0.817	0.954	4.881	21.048
ISIC_0006982	78.818	29.165	106.018	27.877	0.990	0.950	3.448	0.840	0.957	4.028	23.575
ISIC_0007038	56.802	30.587	81.273	29.031	0.990	0.959	3.474	0.811	0.966	8.220	24.519
ISIC_0007087	96.529	28.284	129.716	27.001	0.989	0.937	5.313	0.786	0.956	6.621	22.710
ISIC_0007693	137.389	26.751	187.715	25.396	0.974	0.926	1.848	0.595	0.949	2.385	21.840
ISIC_0009875	310.049	23.217	420.183	21.896	0.967	0.884	7.476	0.762	0.931	3.125	18.855
ISIC_0009877	800.020	19.100	1.091.946	17.749	0.944	0.812	13.957	0.656	0.900	0.520	16.863
ISIC_0009881	420.550	21.893	563.026	20.626	0.943	0.832	4.692	0.512	0.894	2.472	17.447
ISIC_0009882	293.384	23.456	397.371	22.139	0.947	0.862	5.649	0.549	0.893	4.441	18.589
ISIC_0009883	550.515	20.723	729.542	19.500	0.940	0.807	6.307	0.582	0.901	1.662	16.632
ISIC_0009885	454.550	21.555	608.362	20.289	0.951	0.863	5.753	0.601	0.918	2.844	17.495
ISIC_0009891	387.817	22.245	509.504	21.059	0.951	0.834	2.284	0.519	0.900	1.517	16.651
ISIC_0009895	438.958	21.707	625.635	20.168	0.951	0.863	8.529	0.704	0.905	2.842	18.090
ISIC_0009897	358.117	22.591	498.621	21.153	0.957	0.848	8.360	0.656	0.893	3.704	17.532
ISIC_0009926	625.763	20.167	817.313	19.007	0.937	0.767	7.305	0.484	0.884	0.881	17.100
ISIC_0009928	535.025	20.847	722.784	19.541	0.955	0.847	12.174	0.657	0.895	4.154	17.803
ISIC_0009940	292.796	23.465	404.525	22.061	0.961	0.848	6.289	0.665	0.902	3.228	18.316
ISIC_0009962	546.008	20.759	730.436	19.495	0.951	0.848	11.332	0.691	0.901	3.905	17.202
ISIC_0009965	280.975	23.644	379.840	22.335	0.961	0.838	3.086	0.628	0.900	1.470	18.406
ISIC_0009970	521.536	20.958	695.708	19.707	0.957	0.812	9.850	0.646	0.893	1.065	17.834
ISIC_0009973	556.408	20.677	743.738	19.417	0.954	0.820	10.134	0.640	0.897	2.312	17.094
ISIC_0009986	567.880	20.588	750.873	19.375	0.935	0.793	8.662	0.648	0.890	3.214	17.515
ISIC_0009987	382.006	22.310	500.111	21.140	0.960	0.864	10.497	0.729	0.923	4.274	19.117
ISIC_0009993	567.510	20.591	757.976	19.334	0.949	0.823	11.120	0.566	0.890	1.901	17.733
ISIC_0010000	199.738	25.126	270.097	23.816	0.970	0.877	3.562	0.734	0.931	3.428	19.483
ISIC_0010019	385.453	22.271	512.588	21.033	0.952	0.819	5.405	0.620	0.898	1.257	17.262
ISIC_0010022	348.490	22.709	451.668	21.583	0.961	0.866	7.580	0.695	0.920	3.041	18.160
ISIC_0010028	457.278	21.529	613.132	20.255	0.942	0.821	4.686	0.554	0.893	0.981	17.347

ISIC_0010033	534.298	20.853	694.975	19.711	0.942	0.826	7.331	0.563	0.890	3.062	17.309
ISIC_0010034	310.791	23.206	413.591	21.965	0.951	0.840	4.174	0.590	0.893	1.422	17.094
ISIC_0010035	345.343	22.748	451.626	21.583	0.954	0.838	-1.404	0.729	0.916	0.863	16.608
ISIC_0010046	363.739	22.523	476.426	21.351	0.965	0.823	-0.526	0.651	0.901	1.109	16.784
ISIC_0010057	172.055	25.774	231.206	24.491	0.972	0.887	2.504	0.711	0.934	1.276	19.822
ISIC_0010063	546.373	20.756	760.366	19.321	0.962	0.858	9.639	0.742	0.912	3.330	16.776
ISIC_0010069	382.209	22.308	500.980	21.133	0.952	0.840	4.899	0.613	0.913	1.651	18.341
ISIC_0010070	401.345	22.096	539.446	20.811	0.952	0.846	15.351	0.596	0.898	5.116	19.804
ISIC_0010074	390.791	22.211	519.887	20.972	0.954	0.826	3.250	0.638	0.901	1.030	17.802
ISIC_0010079	333.345	22.902	440.059	21.696	0.968	0.869	10.513	0.633	0.925	0.625	19.857
ISIC_0010080	304.028	23.302	400.225	22.108	0.967	0.891	7.529	0.769	0.932	4.360	18.492
ISIC_0010083	294.604	23.438	387.564	22.247	0.961	0.866	7.530	0.716	0.923	3.931	18.940
ISIC_0010088	423.485	21.862	567.991	20.587	0.962	0.865	9.197	0.688	0.927	1.763	19.011
ISIC_0010093	475.191	21.362	631.517	20.127	0.950	0.807	2.736	0.620	0.897	0.964	16.665
ISIC_0010094	627.323	20.156	823.465	18.974	0.936	0.824	9.521	0.606	0.894	1.824	16.467
ISIC_0010100	533.224	20.862	721.089	19.551	0.960	0.835	14.397	0.654	0.914	0.394	18.715
ISIC_0010168	484.553	21.277	647.322	20.020	0.940	0.829	7.557	0.625	0.894	2.686	17.290
ISIC_0010169	297.530	23.395	390.678	22.213	0.959	0.847	8.802	0.670	0.899	2.437	19.094
ISIC_0010182	523.315	20.943	703.673	19.657	0.930	0.771	4.603	0.423	0.879	0.568	16.851
ISIC_0010183	444.766	21.649	592.245	20.406	0.934	0.792	0.815	0.464	0.881	1.129	16.666
ISIC_0010185	302.152	23.329	399.496	22.116	0.944	0.836	-1.088	0.610	0.905	1.345	17.316
ISIC_0010187	250.467	24.143	330.908	22.934	0.967	0.884	9.370	0.681	0.924	2.655	19.683
ISIC_0010191	397.404	22.138	527.599	20.908	0.958	0.836	5.609	0.653	0.894	1.900	17.549
ISIC_0010215	261.731	23.952	341.914	22.792	0.959	0.860	2.484	0.623	0.923	1.443	18.738
ISIC_0010223	568.690	20.582	747.421	19.395	0.955	0.828	10.709	0.666	0.885	3.129	17.455
ISIC_0010226	565.808	20.604	729.467	19.501	0.952	0.791	4.894	0.556	0.898	0.354	17.064
ISIC_0010234	508.779	21.066	678.501	19.815	0.947	0.812	7.767	0.550	0.911	2.317	17.964
ISIC_0010249	595.867	20.379	788.339	19.164	0.946	0.802	5.905	0.529	0.881	1.884	16.754
ISIC_0010252	483.069	21.291	646.386	20.026	0.965	0.839	8.843	0.689	0.907	1.042	18.038
ISIC_0010256	490.847	21.221	655.529	19.965	0.929	0.778	-1.543	0.445	0.907	1.377	15.488
ISIC_0010261	427.131	21.825	570.874	20.565	0.951	0.829	3.057	0.580	0.894	2.048	17.121
ISIC_0010262	483.961	21.283	639.848	20.070	0.947	0.815	6.862	0.627	0.906	2.002	17.517

ISIC_0010331 753.878 19.358 999.166 18.134 0.948 0.800 10.756 0.638 0.883 1.13 ISIC_0010332 451.211 21.587 601.894 20.336 0.948 0.830 4.233 0.624 0.890 1.89 ISIC_0010333 368.352 22.468 483.217 21.289 0.957 0.867 8.417 0.667 0.919 2.74 ISIC_0010334 319.945 23.080 429.416 21.802 0.961 0.867 9.693 0.711 0.916 2.84 ISIC_0010342 534.100 20.855 709.851 19.619 0.955 0.850 13.520 0.629 0.900 1.34	16.296 13 18.650 11 18.814 15 18.048 13 17.743
ISIC_0010333 368.352 22.468 483.217 21.289 0.957 0.867 8.417 0.667 0.919 2.74 ISIC_0010334 319.945 23.080 429.416 21.802 0.961 0.867 9.693 0.711 0.916 2.84	13 18.650 11 18.814 15 18.048 13 17.743
ISIC_0010334 319.945 23.080 429.416 21.802 0.961 0.867 9.693 0.711 0.916 2.84	18.814 15 18.048 3 17.743
	15 18.048 53 17.743
ISIC 0010343	3 17.743
1310_0010342 334.100 20.833 709.831 19.819 0.933 0.830 13.520 0.829 0.900 1.54	
ISIC_0010373 516.520 21.000 671.866 19.858 0.950 0.813 8.359 0.555 0.898 2.06	
ISIC_0010442 533.476 20.860 737.945 19.451 0.937 0.804 6.500 0.583 0.887 1.17	'8 16.537
ISIC_0010443 462.287 21.482 609.360 20.282 0.950 0.819 8.819 0.612 0.909 3.04	18.002
ISIC_0010447 346.092 22.739 466.843 21.439 0.940 0.827 4.667 0.641 0.886 3.94	16.845
ISIC_0010448	18.338
ISIC_0010454 395.718 22.157 532.757 20.866 0.969 0.876 11.573 0.735 0.929 1.59	19.253
ISIC_0010462 248.746 24.173 328.003 22.972 0.956 0.871 4.412 0.712 0.915 5.72	.4 18.696
ISIC_0010468 386.330 22.261 502.988 21.115 0.952 0.829 2.448 0.631 0.900 1.60	9 17.340
ISIC_0010557 353.344 22.649 475.283 21.361 0.951 0.822 0.083 0.637 0.898 1.07	4 17.177
ISIC_0010582 507.134 21.080 669.176 19.875 0.950 0.834 5.414 0.704 0.907 2.63	.4 16.659
ISIC_0010584 201.006 25.099 267.899 23.851 0.974 0.889 2.207 0.771 0.936 1.85	19.196
ISIC_0010589 365.617 22.501 466.546 21.442 0.961 0.865 5.280 0.702 0.920 3.14	17.883
ISIC_0010598 534.926 20.848 705.813 19.644 0.947 0.840 6.859 0.663 0.912 1.58	17.463
ISIC_0010599 384.437 22.283 512.889 21.031 0.944 0.812 3.214 0.507 0.882 0.882	17.096
ISIC_0010854 343.480 22.772 476.048 21.354 0.959 0.848 -1.436 0.546 0.897 0.76	66 16.524
ISIC_0011083 416.504 21.935 543.292 20.780 0.953 0.821 4.755 0.528 0.899 2.97	17.954
ISIC_0011105 449.879 21.600 603.783 20.322 0.961 0.854 13.840 0.655 0.912 1.65	19.005
ISIC_0011119 592.119 20.407 773.469 19.246 0.937 0.782 7.646 0.520 0.887 1.67	77 17.157
ISIC_0011123 408.706 22.017 538.476 20.819 0.950 0.826 5.776 0.580 0.898 1.34	17.690
ISIC_0011137 370.739 22.440 515.385 21.009 0.951 0.817 4.497 0.588 0.884 1.85	17.340
ISIC_0011143 511.034 21.046 678.978 19.812 0.957 0.826 8.220 0.440 0.906 0.65	18.287
ISIC_0011157 815.066 19.019 1.079.577 17.798 0.932 0.790 12.302 0.536 0.892 0.34	16.634
ISIC_0011163 561.074 20.641 746.922 19.398 0.948 0.803 8.707 0.509 0.892 2.15	55 17.543
ISIC_0011168 455.792 21.543 596.595 20.374 0.945 0.811 2.489 0.590 0.899 1.85	16.808
ISIC_0011171 638.680 20.078 841.784 18.879 0.948 0.820 11.237 0.574 0.905 2.19	17.383
ISIC_0011172 430.686 21.789 576.489 20.523 0.949 0.854 4.348 0.668 0.910 1.98	16.911

ISIC_0011176	347.751	22.718	464.813	21.458	0.966	0.863	9.790	0.683	0.920	3.185	19.068
ISIC_0011177	664.721	19.904	878.651	18.693	0.948	0.787	12.624	0.630	0.891	0.554	17.566
ISIC_0011205	613.634	20.252	798.963	19.106	0.958	0.825	11.550	0.594	0.900	3.354	17.653
ISIC_0011211	294.466	23.440	392.614	22.191	0.959	0.863	9.312	0.613	0.901	2.829	18.886
ISIC_0011212	418.371	21.915	556.029	20.680	0.939	0.804	5.999	0.538	0.868	1.374	17.038
ISIC_0011230	889.343	18.640	1.183.054	17.401	0.924	0.771	8.517	0.501	0.873	0.845	15.736
ISIC_0011323	263.791	23.918	353.511	22.647	0.961	0.872	5.395	0.686	0.935	3.013	19.455
ISIC_0011332	392.170	22.196	551.975	20.712	0.959	0.838	9.805	0.694	0.901	3.944	18.543
ISIC_0011353	358.558	22.585	480.831	21.311	0.950	0.829	2.995	0.688	0.909	2.159	17.802
ISIC_0011367	655.801	19.963	874.643	18.712	0.931	0.752	5.776	0.447	0.874	0.374	16.787
ISIC_0011378	428.692	21.809	559.401	20.654	0.948	0.828	7.563	0.573	0.894	3.831	17.743
ISIC_0011382	311.390	23.198	411.579	21.986	0.952	0.864	8.380	0.641	0.908	3.358	18.189
ISIC_0011400	490.028	21.229	666.308	19.894	0.951	0.821	7.663	0.643	0.894	2.548	17.372