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**A COMPARATIVE STUDY ON TOP 10 PERFORMERS IN S&P 500  
 DURING THE PANDEMIC FINANCIAL YEARS  
 2019-2020 AND 2020-2021**

**Dr. H. KANAKA DURGA**

Assistant Professor  
 Department of Business Administration  
 Maris Stella College  
 Vijayawada

**&**

**Dr. K. SARVANI**

Assistant Professor  
 Department of Business Administration  
 Maris Stella College  
 Vijayawada

**Abstract**

*The people who are living on this Earth were there in a highly comfortable zone till December 2019. From January 2020 till today we are living in a highly unhappy, undesirable, uncomfortable, unpredictable, indecisive environment. Still to fight to survive. Drastic changes noticed during the pandemic. The present empirical study focused on top 10 performers based on S&P 500(Worldwide). It is important to study the growth of top performers to boast up the entire business world globally. The comparative study conducted for the financial years 2019-2020 and 2020-2021. Financial year in India starts at April 1 and ends on March 31. Statistical tools applied for the present study are Average, Standard deviation. Information collected from official websites of top 10 performers and compile to draw conclusions. It is necessary to study this particular period how these companies survive in the present situation. Not only survival became the top companies, need to focus and derive useful information through this research work.*

**Keywords:** Average, Top ten performers, S&P 500, Standard deviation

**1. Introduction**

The people who are living on this Earth were there in a highly comfortable zone till December 2019. From January 2020 till today we are living in a highly unhappy, undesirable, uncomfortable,

unpredictable, indecisive environment. Still to fight to survive. Drastic changes noticed during the pandemic. People who are living on this Earth try to prove themselves as most intelligent and self-sufficient. But the Pandemic disease killed

our entire spirit. The impact on public health has resulted in the economy's poor financial performance and thus affected the stock market's performance. For any economy, the stock market's performance plays a vital role and indirectly indicates the country's potential and shareholders' confidence. During this worst situation there is a need to study about the top performers to boost up the economy. The S&P 500 delivered one of its surprising years in recent history in 2020, gaining more than 15%. Most U.S. investors had a lot of winners in their portfolios this year, but some stocks certainly performed better than others.

Here's a look at the 10 best-performing stocks in the entire S&P 500 in 2019 as of the Dec. 2019 closing price.

**1. Tesla Inc (NASDAQ: [TSLA](#))**

The S&P 500's controversial new addition that joined the index in December gained 693.2% in 2020, more than triple the return of any stock that spent the entire year in the index.

**2. Etsy Inc (NASDAQ: [ETSY](#))**

Americans stuck at home with nothing to do turned to Etsy in 2020. The stock joined the S&P 500 in September and is up 302% year-to-date.

**3. Carrier Global Corp (NYSE: [CARR](#))**

The social distancing environment and a red-hot housing market triggered a surge in North American HVAC sales and a corresponding 214.6% gain from Carrier global shares in 2020.

**4. NVIDIA Corporation (NASDAQ: [NVDA](#))**

Semiconductor giant Nvidia has been one of the top-performing stocks in the market over the last decade, and that momentum continued with another 119.2% gain in 2020.

**5. Paypal Holdings Inc (NASDAQ: [PYPL](#))**

Continuing with the theme of social distancing beneficiaries, PayPal shares jumped 117.9% in 2020 thanks to a surge in online transactions.

**6. L Brands Inc (NYSE: [LB](#))**

The parent company of Victoria's Secret and Bath & Body Works was a rare winner in a struggling retail sector in 2020, and the stock gained 114.2% on the year.

**7. Albemarle Corporation (NYSE: [ALB](#))**

Irrational or not, exuberance for electric vehicle stocks sky rockets and in 2020, and lithium producer Albemarle shares gained 104.9% on the year.

**8. Advanced Micro Devices, Inc. (NASDAQ: [AMD](#))**

AMD was the top-performing stock in the S&P 500 in 2019 and nearly generated a repeat performance in 2020, gaining 104.9% on the strength of investor optimism related to online gaming, cloud computing and other tech themes.

**9. Cadence Design Systems Inc (NASDAQ: [CDNS](#))**

Cadence Design provides integrated circuit and electronic device design services, and the stock rallied 94.2% this year as investors piled into high-tech investments.

**10. Service Now Inc (NYSE: [NOW](#))**

Not only is Service Now's business immune from pandemic fallout, more customers are pushing to digitize their businesses as a result of the disruption. Service Now shares gained 92.6% in 2020.

This table shows the return percentages

TICKER	COMPANY	2020 PRICE RETURN
TSLA	Tesla	743.1%
ETSY	Etsy	301.6%
NVDA	Nvidia	121.9%
PYPL	PayPal	116.5%
LB	L Brands	105.5%
ALB	Albermarle Corp.	102.1%
AMD	Advanced Micro Devices	99.8%
FCX	Freeport-McMoRan	98.6%

**Review of Literature:**

1. The impact of COVID-19 is not comparable with any other financial/global crises or pandemic because the challenges are much higher than any other previous crises as this crisis is equally impacting the much more integrated globe without much focus only on low-middle income economies, with the lowest historical rate of interest, and much higher spillover effects (Fernandes, 2020). COVID-19 has the potential to crash any economy if it is not managed properly.

*Rashmi Chaudhary (India), PritiBakhshi (India), Hemendra Gupta (India), Investment Management and Financial Innovations, Volume 17, Issue 3, 2020*

2. This paper examines relative stock market performance following the onset of the coronavirus pandemic for a sample of 80 stock markets. Weekly data on coronavirus cases and deaths are employed alongside Oxford indices on each nation's stringency and government support intensity. The results are broken down both by month and by geographical region.
3. In this paper, we examine the stock markets' response to the COVID-19 pandemic. Using daily COVID-19 confirmed cases and deaths and stock market returns data from 64 countries over the period January 22, 2020 to April 17, 2020, we find that stock markets responded negatively to the growth in COVID-19 confirmed cases. That is, stock market returns declined as the number of confirmed cases increased. We further find that stock markets reacted more proactively to the growth in number of confirmed cases as compared

*Research in International Business and Finance, 2020 – Elsevier*

**Research Gap:**

The authors and scholars found a topic for the problems. There is a gap in the studies for top performers, to attract more investors and to check the positive side of the problem. The present topic has chosen to fill this gap.

**Objectives of the study:**

1. To analyse the performance of top ten performers of S&P 500 during the years 2019-20 and 2020-2021
2. To draw conclusions by comparing the two financial years 2019-20 and 2020-2021 performance of the selected top companies.

**Research Methodology:****Sample:**

Top ten performers monthly returns were considered according to S&P 500 Index. Two financial years' prices were considered. Financial years are 2019-2020 and 2020-2021.

**Data Collection:**

The present empirical study based on from secondary sources of information. Official websites were used to get the share prices. S&P 500 Index websites used to get the historical data.

**Statistical Tools: Mean, Standard Deviation,****Statistical Technique:**

To find the average return MEAN has used

To Find Risk Standard Deviation adopted for the available data

Price Change=  $(P_0 - P_1) / P_0$

Where  $P_0$  is previous month closing price

$P_1$  is current month closing price

Return

The daily return for fund computed by using the following formula

Return =  $(\text{Nav}_t - \text{Nav}_{t-1}) / \text{Nav}_{t-1}$

$\text{Nav}_t$  = Net Assets Value at the end of t

$\text{Nav}_{t-1}$  = Net Assets Value at the end of t - 1

The Average returns of selected mutual fund schemes have been worked out

using the daily return series by the following formula

$$R_p = \sum R_{pt} / n$$

$R_p$  = Average Return

$R_{pt}$  = Return of Sample Mutual Funds Schemes

$N$  = Sample Period

The Daily returns for the market index (NSE-Nifty 500) have been computed

$$R_m = \frac{\text{Market } t - \text{Market } t-1}{\text{Market } t-1}$$

Market  $t$  = Market value at the end of  $t$

Market  $t-1$  = Market value at the end of  $t-1$

The Average returns of markets have been worked out using the daily return series by

the following formula

$$R_m = \sum R_{mt} / n$$

$R_m$  = Average Return

$R_{mt}$  = Return On Market

$N$  = Sample period

**Measurement of Risk**

Standard Deviation that measures the dispersion around the mean standard

deviation how the portfolio return fluctuate during a given time period in relation to

the means of the portfolio return fluctuate during a given time period in relation to the

means of the portfolio low standard deviation means small fluctuations less risk and

vice-versa.

$$\sigma_p = \{1/n \sum (R_{pt} - R_p)^2\}^{1/2}$$

$\sigma_p$  = Standard Deviation

$R_{pt}$  = Return of selected mutual fund schemes

$R_p$  = Average Return

$N$  = Sample period

$$\text{Annualized Risk} = \sigma_p \times \{ \text{Number of trading days} \}^{1/2}$$

**Limitations:**

1. A company called, Carrier Global Corp (NYSE: CARR) data was not available for the year 2019-2020 financial year.
2. Conclusions drawn from the sources available

**Data Analysis:**

Data has analysed by choosing Closing prices of two financial years monthly. Financial years are 01-04-2019 to 31-03-2020 and 01-04-2020 to 31-03-2021

Here clear comparison between two financial years were tabulated, with average return and Average risk.

**Tesla Inc (NASDAQ: [TSLA](#))**

Date	Close	Price change	Date	Close	Price change
01-04-2020	156.376007	0	01-04-2019	47.738	0
01-05-2020	167	0.067938766	01-05-2019	37.032	0.224265747
01-06-2020	215.962006	0.293185665	01-06-2019	44.692	0.206848126
01-07-2020	286.152008	0.325010882	01-07-2019	48.322	0.081222544
01-08-2020	498.320007	0.741452071	01-08-2019	45.122	0.066222364
01-09-2020	429.01001	0.139087325	01-09-2019	48.174	0.067638798
01-10-2020	388.040009	0.09549894	01-10-2019	62.984	0.307427264
01-11-2020	567.599976	-	01-11-2019	65.988	-0.04769462

		0.462735705			
01-12-2020	705.669983	-	01-12-2019	83.666	-
		0.243252313			0.267897213
01-01-2021	793.530029	-	01-01-2020	130.114	-
		0.124505857			0.555159778
01-02-2021	675.5	0.148740469	01-02-2020	133.598	-
01-03-2021	667.929993	0.011206524	01-03-2020	104.8	0.215557138
	Average Return	-			-
		0.169413455			0.095874517
	Average Risk				
		0.277445315			0.2305357

1. **Etsy Inc (NASDAQ: [ETSY](#))**

Date	Close	Price change	Date	Close	Price change
01-04-2020	64.870003		01-04-2019	67.54	
01-05-2020	80.980003	-0.248342828	01-05-2019	62.31	0.077435593
01-06-2020	106.230003	-0.311805372	01-06-2019	61.37	0.015085893
					-
01-07-2020	118.379997	-0.114374411	01-07-2019	67.02	0.092064496
01-08-2020	119.699997	-0.011150532	01-08-2019	52.79	0.212324629
					-
01-09-2020	121.629997	-0.016123643	01-09-2019	56.5	0.070278442
01-10-2020	121.589996	0.000328874	01-10-2019	44.49	0.212566336
01-11-2020	160.699997	-0.32165476	01-11-2019	43.39	0.024724724
					-
01-12-2020	177.910004	-0.107094009	01-12-2019	44.3	0.020972575
					-
01-01-2021	199.089996	-0.11904891	01-01-2020	48.81	0.101805917
					-
01-02-2021	220.270004	-0.10638409	01-02-2020	57.81	0.184388441
01-03-2021	201.669998	0.084441847	01-03-2020	38.44	0.335063167
	Average Return				
		-0.115564349			0.03706277
	Average Risk				
		0.131532475			0.158895208

2. **Carrier Global Corp (NYSE: CARR)**

Date	Close	Price change
01-04-2020	17.709999	
01-05-2020	20.469999	-0.155844165
01-06-2020	22.219999	-0.085490967
01-07-2020	27.24	-0.225922647
01-08-2020	29.85	-0.095814978
01-09-2020	30.540001	-0.023115611
01-10-2020	33.389999	-0.093320167
01-11-2020	38.07	-0.140161759
01-12-2020	37.720001	0.009193564
01-01-2021	38.5	-0.020678658
01-02-2021	36.529999	0.051168857

01-03-2021 42.220001 -0.155762446  
**Average Return -0.085068089**  
**Average Risk 0.082762255**

**3. NVIDIA Corporation (NASDAQ: [NVDA](#))**

Date	Close	Price change	Date	Close	Price change
01-04-2020	73.07		01-04-2019	45.25	
01-05-2020	88.754997	-0.214657137	01-05-2019	33.865	0.251602166
01-06-2020	94.977501	-0.070108774	01-06-2019	41.0575	-0.21238732
					-
01-07-2020	106.147499	-0.117606779	01-07-2019	42.18	0.027339732
01-08-2020	133.744995	-0.259991957	01-08-2019	41.8775	0.007171669
					-
01-09-2020	135.304993	-0.011663973	01-09-2019	43.5175	0.039161914
					-
01-10-2020	125.339996	0.073648406	01-10-2019	50.255	0.154822742
					-
01-11-2020	134.014999	-0.06921177	01-11-2019	54.185	0.078201172
					-
01-12-2020	130.550003	0.025855285	01-12-2019	58.825	0.085632554
					-
01-01-2021	129.897507	0.004998054	01-01-2020	59.1075	0.004802329
					-
01-02-2021	137.145004	-0.055793965	01-02-2020	67.5175	0.142283201
01-03-2021	133.482498	0.026705355	01-03-2020	65.9	0.023956751
	<b>Average Return</b>	<b>-0.060711569</b>			<b>0.041990943</b>
	<b>Average Risk</b>	<b>0.103317609</b>			<b>0.122314707</b>

**4. Paypal Holdings Inc (NASDAQ: [PYPL](#))**

Date	Closing	Price change	Date	Close	Price change
01-04-2020	123		01-04-2019	112.77	
01-05-2020	155.009995	-0.260243862	01-05-2019	109.75	0.026780146
					-
01-06-2020	174.229996	-0.123992011	01-06-2019	114.46	0.042915708
01-07-2020	196.070007	-0.125351613	01-07-2019	110.4	0.035470881
01-08-2020	204.139999	-0.041158728	01-08-2019	109.05	0.012228252
01-09-2020	197.029999	0.034829039	01-09-2019	103.59	0.050068839
					-
01-10-2020	186.130005	0.055321494	01-10-2019	104.1	0.004923275
					-
01-11-2020	214.119995	-0.15037871	01-11-2019	108.01	0.037560078
					-
01-12-2020	234.199997	-0.093779201	01-12-2019	108.17	0.001481307

01-01-2021	234.309998	-0.000469688	01-01-2020	113.89	0.052879737
01-02-2021	259.850006	-0.109000931	01-02-2020	107.99	0.051804382
01-03-2021	242.839996	0.06546088	01-03-2020	95.74	0.113436431
	<b>Average</b>				
	<b>Return</b>	<b>-0.068069394</b>			<b>0.013638984</b>
	<b>Average</b>				
	<b>Risk</b>	<b>0.100691838</b>			<b>0.049205968</b>

**5. L Brands Inc (NYSE: [LB](#))**

<b>Date</b>	<b>Closing</b>	<b>Price Change</b>	<b>Date</b>	<b>Close</b>	<b>Price Change</b>
01-04-2020	11.89		01-04-2019	25.64	
01-05-2020	16.190001	-0.361648528	01-05-2019	22.46	0.124024966
					-
01-06-2020	14.97	0.075355215	01-06-2019	26.1	0.162065947
01-07-2020	24.41	-0.630594522	01-07-2019	25.95	0.005747088
01-08-2020	29.4	-0.204424416	01-08-2019	16.51	0.363776518
					-
01-09-2020	31.809999	-0.081972755	01-09-2019	19.59	0.186553604
01-10-2020	32.009998	-0.0062873	01-10-2019	17.04	0.130168402
					-
01-11-2020	38.810001	-0.212433721	01-11-2019	19.14	0.123239312
01-12-2020	37.189999	0.04174187	01-12-2019	18.12	0.053291434
					-
01-01-2021	40.759998	-0.095993522	01-01-2020	23.16	0.278145625
01-02-2021	54.66	-0.341020674	01-02-2020	21.66	0.064766839
01-03-2021	61.860001	-0.131723399	01-03-2020	11.56	0.466297322
	<b>Average</b>				
	<b>Return</b>	<b>-0.177181978</b>			<b>0.041642553</b>
	<b>Average Risk</b>	<b>0.206656555</b>			<b>0.228846174</b>

**6. Albemarle Corporation (NYSE: [ALB](#))**

<b>Date</b>	<b>Closing</b>	<b>Price change</b>	<b>Date</b>	<b>Close</b>	<b>Price change</b>
01-04-2020	61.43		01-04-2019	75.06	
01-05-2020	76.519997	-0.245645401	01-05-2019	63.3	0.156674651
01-06-2020	77.209999	-0.009017277	01-06-2019	70.41	-0.112322356
01-07-2020	82.459999	-0.067996374	01-07-2019	72.96	-0.036216373
01-08-2020	91.010002	-0.103686674	01-08-2019	61.73	0.153919945
01-09-2020	89.279999	0.019008933	01-09-2019	69.52	-0.12619467
01-10-2020	93.209999	-0.044018818	01-10-2019	60.74	0.126294525
01-11-2020	135.970001	-0.458749088	01-11-2019	65.38	-0.076391091
01-12-2020	147.520004	-0.08494523	01-12-2019	73.04	-0.117161278
01-01-2021	162.660004	-0.102630149	01-01-2020	80.28	-0.099123739
01-02-2021	157.210007	0.033505452	01-02-2020	81.85	-0.01955654
01-03-2021	146.110001	0.070606231	01-03-2020	56.37	0.311301156

<b>Average Return</b>	<b>-0.0903244</b>	<b>0.014656748</b>
<b>Average Risk</b>	<b>0.149218013</b>	<b>0.147769198</b>

**7. Advanced Micro Devices, Inc. (NASDAQ: [AMD](#))**

<b>Date</b>	<b>Closing</b>	<b>Price Change</b>	<b>Date</b>	<b>Close</b>	<b>Price change</b>
01-04-2020	52.389999		01-04-2019	27.63	
01-05-2020	53.799999	-0.026913534	01-05-2019	27.41	0.007962324
					-
01-06-2020	52.610001	0.022118922	01-06-2019	30.37	0.107989821
					-
01-07-2020	77.43	-0.471773399	01-07-2019	30.45	0.002634178
					-
01-08-2020	90.82	-0.172930389	01-08-2019	31.45	0.032840721
01-09-2020	81.989998	0.097225303	01-09-2019	28.99	0.078219425
					-
01-10-2020	75.290001	0.081717248	01-10-2019	33.93	0.170403587
					-
01-11-2020	92.660004	-0.230707966	01-11-2019	39.15	0.153846213
					-
01-12-2020	91.709999	0.01025259	01-12-2019	45.86	0.171392047
					-
01-01-2021	85.639999	0.066186894	01-01-2020	47	0.024858242
01-02-2021	84.510002	0.013194734	01-02-2020	45.48	0.032340426
01-03-2021	78.5	0.071115866	01-03-2020	45.48	0
					-
	<b>Average Return</b>	<b>-0.049137612</b>			<b>0.049585694</b>
	<b>Average Risk</b>	<b>0.174986603</b>			<b>0.086964296</b>

**8. Cadence Design Systems Inc (NASDAQ: [CDNS](#))**

<b>Date</b>	<b>Closing</b>	<b>Price Change</b>	<b>Date</b>	<b>Close</b>	<b>Price Change</b>
01-04-2020	81.129997		01-04-2019	69.38	
01-05-2020	91.290001	-0.125231164	01-05-2019	63.57	0.083741673
					-
01-06-2020	95.959999	-0.051155635	01-06-2019	70.81	0.113890168
					-
01-07-2020	109.25	-0.138495218	01-07-2019	73.91	0.043779213
01-08-2020	110.910004	-0.015194545	01-08-2019	68.48	0.073467741
01-09-2020	106.629997	0.038589909	01-09-2019	66.08	0.035046742
01-10-2020	109.370003	-0.02569639	01-10-2019	65.35	0.011047276
					-
01-11-2020	116.300003	-0.063362895	01-11-2019	70.25	0.074980905
01-12-2020	136.429993	-0.173086754	01-12-2019	69.36	0.012669025



01-01-2021	130.389999	0.044271746	01-01-2020	72.11	0.039648212
01-02-2021	141.089996	-0.082061485	01-02-2020	66.14	0.082790208
01-03-2021	136.990005	0.029059403	01-03-2020	66.04	0.001511914
<b>Average Return</b>			<b>0.00254328</b>		
<b>Average Risk</b>			<b>0.065412581</b>		

**9. ServiceNow Inc (NYSE: [NOW](#))**

Date	Close	Price Change	Date	Close	Price Change
01-04-2020	351.540009		01-04-2019	271.51	
01-05-2020	387.929993	-0.10351591	01-05-2019	261.93	0.035284213
01-06-2020	405.059998	-0.044157465	01-06-2019	274.57	-0.048257223
01-07-2020	439.200012	-0.084283845	01-07-2019	277.39	-0.010270634
01-08-2020	482.019989	-0.097495391	01-08-2019	261.84	0.056058323
01-09-2020	485	-0.006182339	01-09-2019	253.85	0.03051478
01-10-2020	497.570007	-0.02591754	01-10-2019	247.26	0.025960255
01-11-2020	534.549988	-0.074321162	01-11-2019	283.04	-0.144706037
01-12-2020	550.429993	-0.02970724	01-12-2019	282.32	0.002543817
01-01-2021	543.159973	0.013207892	01-01-2020	338.23	-0.198037697
01-02-2021	533.460022	0.017858369	01-02-2020	326.09	0.035892779
01-03-2021	500.109985	0.062516469	01-03-2020	286.58	0.121162898
<b>Average Return</b>			<b>-0.00853223</b>		
<b>Average Risk</b>			<b>0.091520507</b>		

**Findings:**

1. Average returns and risk are varying for the years 2019-2020 and 2020-2021
2. There a positive increase on the prices of all 10 companies at the end of the financial year 2020-2021
3. Their innovations led the companies as top performers from the world markets.

**Suggestions:**

1. It is clear that investors can opt for the diversified portfolio
2. The concept of Wealth maximisation almost reached its aim
3. Need to develop other manufacturing sectors.

**Scope for further Research:**

Always there is a scope for further research, application of correlation and regression can give more clear picture about the performance of the companies

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