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Global Clue of International Exchanges on SENSEX and NIFTY for Portfolio Formulation under International Diversification Strategy

Dr. K R PundareekaVitala[1], Arun James[2]

[1]Professor, PG Commerce Department, Presidency College
[2]Assistant Professor, Commerce Department, Presidency Evening College

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ABSTRACT

International diversification is most challenging when a high-net-worth individual wants to invest in different markets around the world. The current study aims at correlating the above-said problem in order to know the impacts of international indices on NIFTY and SENSEX. The results of the study signify that, there is substantial integration between Indian and International exchanges. The study reveals that Indian Stock Exchange Indices NIFTY and SENSEX along with American Stock Exchanges of Brazil, USA, Mexico and Canada, Asian Stock Exchanges of Malaysia, Hong Kong, South Korea, Japan has a very low correlation and less impact on each other, where a high-net- worth individual can construct a well-diversified portfolio consisting of stocks from those selected Indices.

Introduction

The term investment can be related to various activities, however, the objective in these activities is to utilize the cash or asset during the time span looking to upgrade investor's riches or wealth. Investment refers to investing money in financial physical assets and marketing assets. Risk, return, liquidity, capital growth, stability, and benefits are some of the major characteristics of an investment. Portfolio Investment will enable investors to pick among alternative investment assets. This selection process requires assessing the expected risk-return for alternative investments available.

A Portfolio alludes to an assortment of speculation apparatuses, for example, stocks, shares, common assets, bonds, money relying upon the investor's income, spending plan, and helpful time period. Portfolio Management is the art and science of choosing and regulating a gathering of investments and ventures that meet the drawn-out monetary goals, long-term financial objectives, and hazard resilience of a client, an organization, or a foundation. It requires the capacity to gauge qualities and shortcomings, opportunities and danger over the full range of ventures and investments.

Worldwide investors have been realizing that there are significant gains to be made by investing internationally. Worldwide Portfolio Management, otherwise called International Portfolio Management or Foreign Portfolio Management alludes to the gathering of venture resources from global or outside business sectors instead of from the domestic ones. Assessment rates on profits and premium earned is a significant influencer of GPM. Global Portfolio is a choice of stocks and different resources that centers the foreign markets as opposed to domestic ones. This gives the investors presentation to rising and developed markets and provides diversification. A worldwide portfolio can be utilized to decrease speculation risk. For instance, an investor may part a portfolio equitably among foreign and domestic holdings. The domestic portfolio may decrease by 10% while the international portfolio could progress by 20 %, leaving the investor with a general net income of 10%. Risk can be lessened further by holding a determination of stocks fromdeveloping markets in the international portfolio.

Investors for the most part decide to put resources into a nation where the applied charges on premium earned or profit gained are low. High loan interests are constantly a major fascination for investors. Cash for the most part streams to nations that have high loan costs. At the points when investors put resources into protections in a global nation, their arrival is for the most part influenced firstly, by the obvious change in the estimation of the security and secondly, the changes in the estimation of money wherein security is overseen. Investors ordinally move their venture when the estimation of cash in a country they contribute undermines more than foreseen. At a point when investors purchase stocks for a global portfolio, they are additionally adequately purchasing the currencies in which stocks are quoted.

Capital markets and financial intermediaries play out the capacity of moving the surpluses, accordingly empowering the excess unites to gain a higher pace of profits for their reserve funds and the shortage units to acquire a benefit by misusing the investment opportunities. International capital flows basically a similar reason, viz. exchange the reserve funds to investors worldwide in order to expand the gradual efficiency and productivity of investment. Savers in capital-rich nations, whenever restricted to investment opportunities to their nations, can’t like to accomplish an exceptionally high rate of return as the efficiency of interest in such nations procures to be low. In the event that assets are permitted to stream across national’s outskirts, savers in rich nations can gain a higher rate of return. International loaning and borrowing license investors to accomplish a cover consumption profile. In general wellness, the charge would be greater with cross-border capital streams than without.

REVIEW OF LITERATURE:

The researcher tried to cover the various International Markets such as New York Stock Exchange (NYSE), Hong Kong Stock Exchange (HSE), Tokyo Stock Exchange (TSE), Russian Stock exchange (RSE), Korean Stock Exchange (KSE) along with Indian Stock Market BSE, NSE and wanted to prove that there has been an integration of Indian Market with Global counterparts by a comparative analysis

of both from different geo-political-socio-economic areas. The objective of the researcher was to see the similarities and movements of the Indian Stock Market in comparison with International counterparts with an aim to determine various stock exchanges globally have an impact on each other. The methodology used by the researcher was qualitative and quantitative statistical methods based on certain parameters. The study concluded that the stock markets have an impact on each other. The researcher also added that the Indian stock market is working better than most of its Asian counterparts and also enjoys good credibility as well. Looking at the efficiency of the trading mechanism, the Indian mechanism is faster and the best in the world. Further stated, India has a very low rank in terms of market capitalization and all other stock exchanges were above Indian stock exchanges. By summing up the study, it was observed that markets do react to global cues and any happening in a global scenario will affect the various markets(D Mukherjee, 2007). (Patel & Kagalwala, 2013)This research paper talks about relationships and measuring the impact of changes in exchange rates and Indian Stock Exchanges BSE and NSE. The objective of the study was to analyze the dependency of the stock market on exchange rates and identifying correlations between them. The methodology used by the researchers was correlation, regression, and ANOVA test was applied for the data for the year 2005 to 2012. The paper concluded by stating that there was no or very little impact of exchange rates on the Indian stock market. (Mandaviya, 2014)In this article, the researcher examined the integration of the stock market and degree of influence of the Indian Stock Market by Global Stock Market, using 10 stock exchanges with the month-wise average price of BSE SENSEX, NSE NIFTY, NYSE, NASDAQ, S&P 500, TOPIX, FTSE 100, Hang Sang, SSE Composite Index,
DAX, Dow Jones. The overall objective of the researcher during the study was to find out whether there is an integration of the Indian Stock Market and Global Stock Market. Understanding the level of interdependence among stock markets in the world and how it impacts the Indian Stock Market, for the period of 13 years from 2000 to 2013. The correlation model and regression model were the tools used by the researcher to study the level of correlation between stock markets. The researcher concluded that there is strong integration between Indian and International Financial Markets. Further stated that the major stock indices are positively correlated with each other and there is a significant relation between NIFTY and SENSEX along with other indices of the world. (K. J. Sandeep et al., 2015)This study was taken with the objective of identifying the impact of global exchanges on Indian Nifty and volatility. The study focuses on the Asian and European countries for a time period of 10 Nov to 20 Nov 2014. Their research methodology included co- integration, Granger causality test, volatility. The study revealed and concluded that the Indian market volatility is influenced by the global exchanges and the Indian market has a strong correlation with certain selected global exchanges. (Aruna Poslisetly et al., 2016)This study was undertaken to analyze the relationship between the stock market and exchange rates in India for the decade 2005 – 2014 of indices BSE SENSEX and NSE NIFTY. The objective of this study was to see whether there was a significant relationship and linkage between the foreign exchange and stock market in India and to examine these links were affected by the existence of foreign exchange. The researchers used the

methodology of correlation to calculate the relation between NSE NIFTY and BSE SENSEX with reference to the exchange rate. Through correlation, they interpreted and concluded that the exchange rates and BSE SENSEX as well as NSE NIFTY are very low and have a weak relationship. If more independent variables like interest rate, the money supply would be included than just a single variable exchange rate, then there could have been a good and strong relationship.

RESEARCH GAP

In the past studies mentioned above, the researcher focused and tried to show the relationship between the Indian stock market and the Global stock market and also the impacts which stock markets globally have on each other. The current study aims to show how the major International indices of American, Asian, and European African Middle East stock exchanges correlate with Indian NIFTY and SENSEX.

Statement of Problem

International diversification is most challenging when a high-net-worth individual wants to invest in different markets around the world. He needs to understand the global cues and also how the Indian market has been affected by American, Asian, and European African Middle East exchanges are of great importance to building a portfolio by a high network individual through the process of international diversification. The current study aims at correlating the above -said problem in order to know the impacts of International indices on NIFTY and SENSEX.

Objectives of the Study

- To identify the trends in International Exchanges comprising of American and Asian Exchanges.
- To examine the indices which give maximum returns among International Exchanges.
- To compare the major and prominent indices among the International Exchanges giving maximum returns.
- To analyze the impact of major international indices on NIFTY and SENSEX.
- To render the suggestion for construction of optimal portfolio under International Diversification.

Research Methodology

The study follows descriptive and analytical research methods.Data related to International Indices and Sensex Nifty has been directly obtained through the Handbooks of Statistics from the SEBI website and other relevant information was looked into various websites and research papers. This study is analytical in nature. In order to analyze the impact of International Exchanges on Indian Exchanges, it uses a descriptive-analytical study. The study uses data published by SEBI Statistical technique like correlation is used for analyzing the given data.

DATA ANALYSIS & INTERPRETATION

Table 1, shows the data analysis for the observed period of 2010 to 2018 Indian Indices NIFTY and SENSEX has shown the following trend.

From the table.2 the average returns offered by NIFTY is 9.16% whereas SENSEX is 9.07% showing NIFTY stocks are offering high rate of return when compared to stocks of SENSEX. The volatility of standard deviation found is 11.90% and

11.97% for returns offered by NIFTY and SENSEX respectively. So therefore, NIFTY and SENSEX both have same volatility percentage. There is minimum negative return offered by NIFTY at the rate of 6.10% in the year 2011 and as well as by SENSEX at rate of 6.35% in the same year. That shows the stocks have not performed better during the year. Maximum return offered by Indian Exchanges NIFTY and SENSEX were 32.58% and 31.99% respectively in the 2014. This shows there was a boom and stocks have performed well in Indian Stock Market in that year. NIFTY is more consistent than SENSEX as it has lowest Co-efficient of Variation of SENSEX is 26.66% which is more consistent when compared to NIFTY with 27.31 as stocks in NIFTY were both NIFTY and SENSEX offering same return and having same volatility percentage.

SHOWING TREND IN INDICES AND RETURNS OFFERED BY AMERICAN & INDIAN STOCK EXCHANGES

	YEAR	% of Return NIFTY NIFTY	offered by	% of Return SENSEX SENSEX	BRAZIL offered by INDEX	% OF RETURNS IBOVESPA BY BRAZIL	JONES OFFERED AVG INDEX	% OF RETURNS INDUS. BY DOW JONES	MEXICO OFFERED	% RETURNS IPC INDEX BY MEXICO	NASDAQ OFFERED INDEX	% RETURNS COMPOSITE OFFERED BY NASDAQ
2010	5,584		18,605		69,305		11,578		38,551		2,653	
2011	5,243	-6.1	17,423	-6	56,754	-18.1	12,318	6	37,078	-3.8	2,605	-2
2012	5,520	5.3	18,202	4	60,952	7.4	13,104	7	43,706	17.9	3,020	16
2013	6,010	8.9	20,120	11	51,507	-15.5	16,577	26	42,727	-2.2	4,177	38
2014	7,967	32.6	26,557	32	50,007	-2.9	17,823	8	43,146	1	4,736	13
2015	7,984	0.2	26,322	-1	43,350	-13.3	17,425	-2	42,978	-0.4	5,007	6
2016	8,421	5.5	27,338	4	60,227	38.9	19,763	13	45,643	6.2	5,383	8
2017	10,030	19.1	32,397	19	76,402	26.9	24,719	25	49,354	8.1	6,903	28
2018	10,822	7.9	35,774	10	87,887	15	23,327	-6	41,640	-15.6	6,635	-4

TABLE 1

DESCRIPTIVE STATITICS OF INDIAN AND AMERICAN INDICES AND RETURNS

Particulars	Nift		Sense		BRAZIL IBOVESPA		DOW JONES INDUS.		MEXICO IPC		NASDAQ COMPOSITE	
Average	7,508.92	9.16	24,748.66	9.07	61,821.35	4.8	17,392.58	9.68	42,758.11	1.39	4,568.78	12.93
Standard Deviation	2,050.74	11.9	6,597.27	11.97	13,982.80	21	4,668.49	11.58	3,607.98	9.81	1,607.78	14.49
Minimum	5,242.74	-6.1	17,422.88	-6.35	43,349.96	-18.11	11,577.51	-5.63	37,078.00	-15.63	2,605.00	-3.88
C	10,821.70	32.58	35,773.94	31.99	87,887.26	38.93	24,719.22	26.5	49,354.00	17.88	6,903.00	38.31
	27.31	129.82	26.66	132.03	22.62	437.65	26.84	119.6	8.44	706.57	35.19	112.08

TABLE 2

From the above table 1, the average returns offered by Brazil index is 4.80% where as Dow Jones is 9.68% showing Dow Jones stocks are offering high rate of return when compared to stocks of Brazil index. The volatility of standard deviation found is 21% and 11.58% for returns offered by Brazil index and Dow Jones respectively.

So therefore, Dow Jones index is less volatile compared to Brazil which indicates that the prices of stocks in Dow Jones are in a narrow trading range. There is negative return offered by Brazil with minimum rate of 18.11% in year 2011 and as well as by Dow Jones at rate of 5.63% in 2015 with 2% negative return offered in that year. That shows the stocks have not performed better during the year. Maximum return offered by Brazil index and Dow Jones were 38.93% in 2016 and 26.50% in 2013 respectively. This shows there was a boom and stocks had performed well in Brazil and Dow Jones stock market in those two years. Co -efficient of variation of Brazil is 22.62% which is more consistent than Dow Jones index having 26.84% as it has the lowest CV when compared to Dow Jones index but stocks offering less average rate or return and high volatility percentage in Brazil.

The average returns offered by Mexico index is 1.39% whereas NASDAQ is 12.93% showing NASDAQ stocks are offering high rate of return when compared to stocks of Mexico index. The volatility of standard deviation found is 9.81% and 14.49% for returns offered by Mexico index and NASDAQ respectively. So therefore, Mexico index is less volatile compared to NASDAQ which indicates that the prices of stocks trading on Mexico index are in a narrow trading range. There is negative return offered by Mexico index with minimum rate of 15.63% in year 2018 and as well as by NASDAQ at rate of 4% offered in the same year. That shows the stocks have not performed better that year. Maximum return offered by Mexico index and NASDAQ were 17.98% in year 2012 and 38.31% in year 2018 respectively. This shows there was a boom and stocks had performed well in Mexico and NASDAQ stock exchanges in those two years. Co -efficient of variation of Mexico is 8.44% which is more consistent than NASDAQ index having 35.19% as it has the lowest CV when compared to NASDAQ indicating stocks in Mexico have low volatility percentage offering at rate of return than NASDAQ.

TABLE3: SHOWING CORRELATION BETWEEN RETURNSOFFERED BY INDIAN AND AMERICAN EXCHANGES

	NIFTY	*SENSEX*	*BRAZIL*	*DOW JONES*	*MEXICO*	*NASDAQ*
NIFTY	*1*					
SENSEX	*0.993*	*1*				
BRAZIL	*0.234*	*0.201*	*1*			
DOW JONES	*0.301*	*0.312*	*0.1558*	*1*		
MEXICO	*0.113*	*0.026*	*0.2677*	*0.411*	*1*	
NASDAQ	*-0.39*	*-0.404*	*0.0198*	*-0.88*	*-0.429*	*1*

TABLE 3

Firstly, correlating NIFTY with each of the American Exchange, it is observed that Brazil, Dow Jones, Mexico has low correlation of 0.234, 0.301, 0.113respectively and does not have much impact on Indian NIFTY. NASDAQ have a negative correlation of -0.39 with NIFTY which indicates that NASDAQ is the good combination to get guaranteed return along with other indices. Therefore, by investing in India NIFTY and as well as in American indices like Brazil, Dow Jones, Mexico, NASDAQ gives an investor optimum blend of portfolio with low risk. It is advisable for an investor to go for those indices.

Secondly, correlating SENSEX with each of the American Exchange, it is observed that Brazil, Dow Jones, Mexico has low correlation of 0.201, 0.312, 0.026respectively and does no t have much impact on Indian SENSEX. NASDAQ has negative correlation of -0.404 with NIFTY which indicates that NASDAQ is the good combination to get guaranteed return along with other indices. Therefore, by investing in India SENSEX and as well as in American indices like Brazil, Dow Jones, Mexico, NASDAQ composite gives an investor optimum blend of portfolio with low risk. It is advisable for an investor to for those indices.

STATITICS OF ASIAN INDICES AND RETURNS

Particulars	FTSE BURSA MALAYSIA KLCI INDEX		HANG SENG INDEX		JAKARTA COMPOSITE INDEX		KOSPI INDEX		NIKKEI 225 INDEX		NZX 50 GROSS INDEX	
Average	1,687.60	1.58	23,413.11	2.84	4,864.80	7.26	2,033.00	0.57	15,972.15	10.74	5,707.82	13.32
Standard Deviation	114.41	7.36	3,123.26	18.52	966.15	12.2	177.78	12.06	5,057.29	23.19	2,060.21	8.61
Minimum	1,518.91	-5.91	18,434.39	-19.97	3,703.51	-12.13	1,825.74	-17.28	8,455.35	-17.34	3,274.71	-1.04
Maximum	1,866.96	10.54	29,919.15	35.99	6,355.65	22.29	2,467.49	21.76	22,764.94	56.72	8,811.27	24.18
CV	6.78	466.4	13.34	653.08	19.86	167.97	8.74	2,123.26	31.66	215.84	36.09	64.67

TABLE 4

From Table 4; 2 the average returns offered by FTSE Bursa is 1.58% were as Hang Sang is 2.84% showing Hang Sang stocks are offering high rate of return when compared to stocks of FTSE Bursa. The volatility of standard deviation found is 7.36% and 18.52% for returns offered by FTSE Bursa and Hang Sang respectively. So therefore, FTSE Bursa is comparatively less volatile than Hang Sang index which indicates that the prices of stocks trading on FTSE Bursa are in a narrow trading range. There is negative return offered by S&P 500 index with minimum rate of 6% in year 2014 and 2018 and as well as by Hang Sang at rate of 20% in the year 2011. That shows the stocks have not performed better in those years. Maximum return offered by S&P 500 index and S&P Composite were 10% in year 2012 and 36% in year 2017 respectively. This shows there was a boom and stocks had performed well in FTSE Bursa and Hang Sang stock exchanges in those two years. Co-efficient of variation of FTSE Bursa is 6.78% which is more consistent than Hang Sang index having 13.34% as it has the lowest CV when compared to Hang Sang indicating stocks in FTSE Bursa having low volatility percentage but offering less average returns than Hang Sang.

TABLE 5: SHOWING TREND IN INDICES AND RETURNS OFFERED BY ASIAN STOCKEXCHANGES

YEAR	FTSE BURSA MALAYSIA KLCI INDEX	% OF RETURNS OFFERED BY FTSE BURSA	HANG SENG INDEX	% OF RETURNS OFFERED BY HANG SANG	JAKARTA COMPOSITE INDEX	% OF RETURNS OFFERED BY JAKARTA	KOSPI INDEX	% OF RETURNS OFFERED BY KOSPI	NIKKEI 225 INDEX	% OF RETURNS OFFERED BY NIKKEI	NZX 50 GROSS INDEX	% OF RETURNS OFFERED BY NZX 50
2010	1,519		23,035		3,704		2,051		10,229		3,309	
2011	1,531	1	18,434	-20	3,822	3	1,826	-11	8,455	-17	3,275	-1
2012	1,689	10	22,657	23	4,317	13	1,997	9	10,395	23	4,067	24
2013	1,867	11	23,306	3	4,274	-1	2,011	1	16,291	57	4,737	16
2014	1,761	-6	23,605	1	5,227	22	1,916	-5	17,451	7	5,568	18
2015	1,693	-4	21,914	-7	4,593	-12	1,961	2	19,034	9	6,324	14
2016	1,642	-3	22,001	0	5,297	15	2,026	3	19,114	0	6,881	9
2017	1,797	9	29,919	36	6,356	20	2,467	22	22,765	19	8,398	22
2018	1,691	-6	25,846	-14	6,194	-3	2,041	-17	20,015	-12	8,811	5

TABLE 5

From the table average returns offered by Jakarta is 7.06% were as KOSPI is 0.57% showing Jakarta stocks are offering very high rate of return when compared to stocks of KOSPI index. The volatility of standard deviation found is 12.20% and 12.06% for returns offered by FTSE Bursa and Hang Sang respectively. So therefore, both Jakarta and KOSPI are having relatively same percentage of volatility for their stocks. There is negative return offered by Jakarta index with minimum rate of 12% in year 2015 and as well as by KOSPI at rate of 17% in the year 2018. That shows the stocks have not performed better in those years. Maximum return offered by Jakarta index and KOSPI were 22% in year 2014 and same 22% in year 2017 respectively. This shows there was a boom and stocks had performed well in Jakarta and KOSPI stock exchanges in those two years. Co-efficient of variation of KOSPI is 8.74% which is more consistent than Jakarta index having 19.86% as it has the lowest CV when compared to Jakarta indicating stocks in KOSPI having low volatility percentage but offering fewer average returns than Jakarta index.

From the above table 4. the average returns offered by Nikkei 225 is 10.74% were as NZX 50 is 13.32% showing NZX stocks are offering very high rate of return when compared to stocks of Nikkei 225 index. The volatility of standard deviation found is 23.19% and 8.61% for returns offered by Nikkei 225 and NZX 50 respectively. So therefore NZX 50 is comparatively less volatile than Nikkei 225. There is negative return offered by Nikkei 225 index with minimum rate of 17.34% in year 2011 and as well as by NZX 50 at rate of 1.04% in the year 2012. That shows the stocks of have not performed better in those years. Maximum return offered by Nikkei 225 index and NZX 50 were 57% in year 2013 and 24% in year 2012 respectively. This shows there was a boom and stocks had performed well in Nikkei 225 and NZX 50 stock exchanges in those two years. Co-efficient of variation of Nikkei 225 is 31.66% which is more consistent than NZX 50 index having 36.09% as it has the lowest CV when compared to NZX 50 indicating stocks in Nikkei 225 having high volatility percentage but offering fewer average returns than NZX 50.

TABLE 6: SHOWING CORRELATION BETWEEN INDIAN AND ASIAN EXCHANGES

NIFTY	1						

SENSEX	0.9928	1					
FTSE BURSA	-0.0873	-0.07007	1				
HANG SANG	0.4371	0.40148	0.6657	1			
JAKARTA	0.6658	0.61546	0.1678	0.5986	1		
KOSPI	0.2264	0.1727	0.6385	0.9139	0.446	1	
NIKKEI	0.2284	0.25215	0.7292	0.5291	0.0203	0.5181	1

The following table 6; shows correlation describing the relationship that exits between NIFTY and SENSEX with each of the Asian Exchanges (FTSE Bursa, Hang Sang, Jakarta, KOPSI and Nikkei 225).

Firstly, correlating NIFTY with each of the Asian Exchange, it is observed that Hang Sang, KOSPI and Nikkei 225 has low correlation of 0.437, 0.226, 0.228 respectively and does not have much impact on Indian NIFTY. FTSE Bursa have a negative correlation of -0.087 with NIFTY which indicates that FTSE Bursa is the good combination to get guaranteed return along with other indices as they do not have much impact on Indian NIFTY. Indices which are having more correlation than 0.5, Jakarta is 0.665 and NXZ 50 is 0.551 indicating that they have more influence on Indian NIFTY and must be ignored. Therefore, by investing in Indian NIFTY along with Asian indices like FTSE Bursa, Hang Sang, KOSPI and Nikkei 225 composite gives an investor optimum blend of portfolio with low risk. It is advisable for an investor to go for those indices.

Secondly, correlating SENSEX with each of the Asian Exchange, it is observed that Hang Sang, KOSPI and Nikkei 225 has low correlation of 0.401, 0.172, 0.252 respectively and does not have much impact on Indian SENSEX. FTSE Bursa have a negative correlation of -0.070 with SENSEX which indicates that FTSE Bursa is the good combination to get guaranteed return along with other indices as they do not have much impact on Indian SENSEX. Indices which are having more correlation than 0.5, Jakarta is 0.615 and NXZ 50 is 0.511 indicating that they have more influence on Indian SENSEX and must be ignored. Therefore, by investing in Indian SENSEX along with Asian indices like FTSE Bursa, Hang Sang, KOSPI and Nikkei 225 composite gives an investor optimum blend of portfolio with low risk. It is advisable for an investor to go for those indices.

FINDINGS

•NIFTY average is 7,508.92 offering 9.16% of average returns and SENSEX is 24,748.66 with 9.07% of average returns. Volatility in both the indices are same with 11%. Highest returns offered by NIFTY and SENSEX is 32%.

•Lowest returns offered by NIFTY and SENSEX is -6%. Brazil Index average is 61,821.35 offering 4.8% of average returns and Dow Jones is 17,392.58 offering 9.86% of average returns. Dow Jones index with 11% is less volatile than Brazil Index with 21%.

•Highest returns offered by Brazil Index is 38% and lowest is -18%. Highest returns offered by Dow Jones is 26% and lowest returns is -6%. Mexico Index average is 42,758.11 offering 1.39% of average returns and NASDAQ is 4,568.78 offering 12.93% of average returns. Mexico Index with 9.81% is less volatile than NASDAQ with 14.49%.

•Highest returns offered by Mexico Index is 17% and lowest is -15%. Highest returns offered by NASDAQ is 38% and lowest is -3.8%.
•All American Stock Exchanges like Brazil, Dow Jones, Mexico, NASDAQ, S&P 500 and S&P Composite have a very low correlation and less impact on Indian NIFTY and SENSEX which indicates that those exchanges are considered best for portfolio creation with low risk for an FTSE Bursa Index average is 1,687.60 offering 1.58% of average returns and Hang Sang Index is 23,413.11 offering 2.84% of average returns. FTSE Bursa with7.36% is less volatile than Hang Sang with 18.52%.
•Highest returns offered by FTSE Bursa is 11% and lowest is -6%. Highest return offered by Hang Sang is 36% and lowest is -20%. Jakarta Composite Index average is 4,864.84 offering 7.26% of average returns and KOSPI Index is 2,033 off ering 0.57% of average returns. Volatility in both the indices is same with 12%. Highest returns offered by Jakarta Index is 22% is lowest is -12%.
•Highest returns offered by KOSPI Index is 22% and lowest is -17%.
•Nikkei 225 Index average is 15,972.15 offering 10.74% of average returns and NZX 50 Index is 5,707.82 offering 13.32% of average returns.
•NZX 50 Index with 8.61% is less volatile than Nikkei 225 Index with 23.19%. Highest returns offered by Nikkei 225 Index is 57% and lowest is -17%. Highest returns offered by NZX 50 Index is 24% and lowest is -1%.

CONCLUSIONS AND SUGGESTIONS

•All American Stock Exchanges such as Brazil, Dow Jones, Mexico, NASDAQ, S&P 500, and S&P Composite Indices have a low correlation with Indian NIFTY and SENSEX.
•It implies that if a high-net-worth individual invests in stocks of Indian and American parallelly, the stocks will provide minimum guaranteed returns.
•Hence it suggests that Indian and American Exchanges in combination are best to make investments.
•Asian Stock Exchanges such as FTSE Bursa, Hang Sang, KOSPI, Nikkei 225, S&P/ASX 200, Indices have low correlation with Indian NIFTY and SENSEX.
•It implies that if a high-net-worth individual invests in stocks of Indian and those Asian Exchanges parallelly, the stocks will provide minimum guaranteed returns. Hence it suggests that Indian and those Asian Exchanges in combination are best to make investments.
•Worldwide investors have been understanding that there are considerable and substantial gains to be made by investing globally.
•Diversification explicitly increase the efficient frontier for the investors. This enlargement is obtained by further diversifying through international diversification.
•For a high net worth individual, having just domestic focus misfortunes investment opportunities that be gained through overseas. International investments bring a more extensive scope or range of investments for diversification.
•Portfolio investments in different countries whose economic cycles are not perfectly in phase, decrease or lessens the risk measured by portfolio standard deviation.
•Putting resources into or investing in country with an economic cycle that closely matches the same in domestic country will provide no diversification benefits.

•To limit the portfolio risk, an investor needs to build a well-diversified portfolio which mainly works upon the relationship of the stocks.
•It basically depends upon low correlation of returns between different countries. Making an investment in a diversity of assets from foreign stock markets, investors can lower portfolio risk however much as could by holding foreign assets that are low or negatively correlated.
•The results of the study signify that, there is substantial integration between In dian and International exchanges. The study reveals that Indian Stock Exchange Indices NIFTY and SENSEX along with American Stock Exchanges of Brazil, USA and Mexico Asian Stock Exchanges of Malaysia, Hong Kong, South Korea, Japan have a very low correlation and less impact on each other, where a high net worth individual can construct a well- diversified portfolio consisting of stocks from those selected Indices.

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