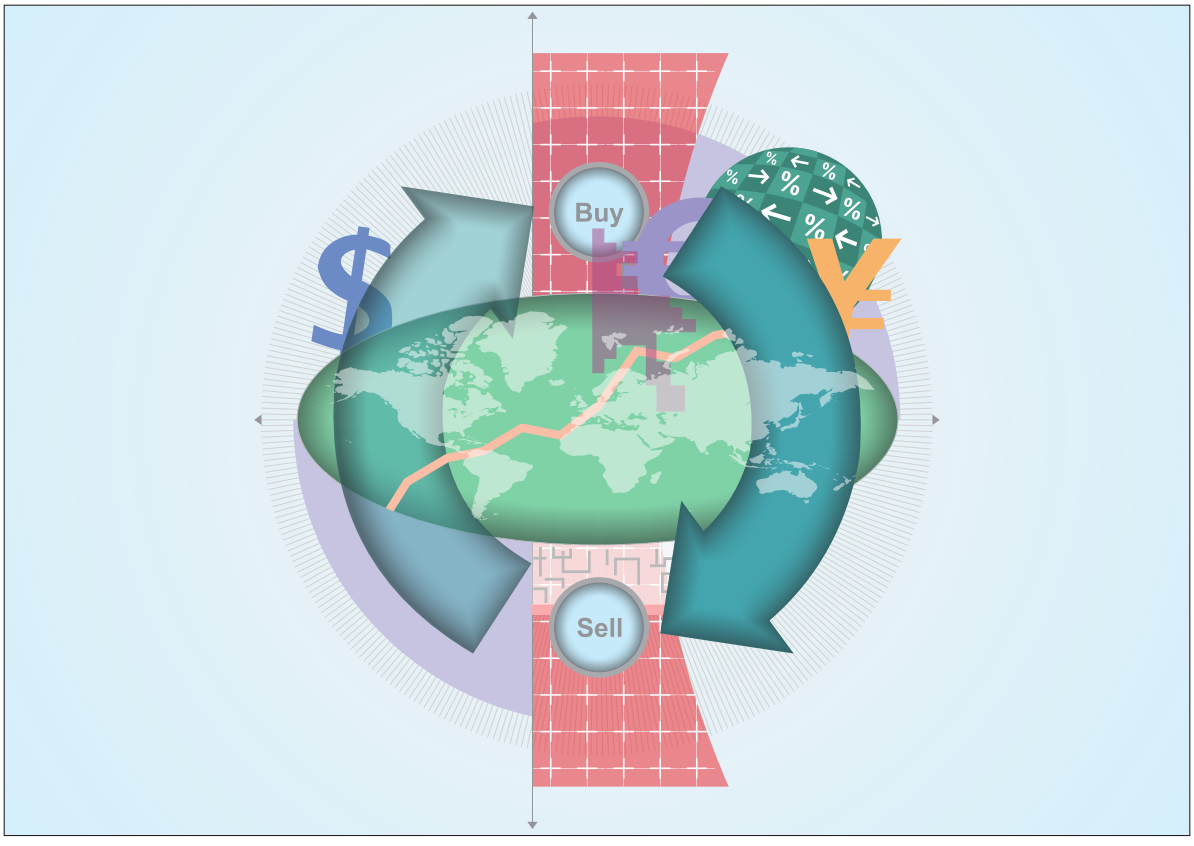

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An Empirical Study on IT Stock Price Movement in India

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ABSTRACT

The high valuations of the IT stocks all over the world, their vulnerability and the presence of cross-border contagion in the sector have created interest among researchers, investors and policy makers. This study looks for, using an exploratory factor analysis approach, the possible linkage of the Indian IT sector with the domestic stock market as well as with the outer world, particularly, the US and French market over different phases of stock price movements. Over the eleven-year study-period from 1999 to 2009, global stock market has witnessed two significant crises. While, the first crisis was confined to the IT sector, the second one has been most general and encompassing in nature. Most surprisingly, Indian IT sector remained strictly decoupled from the global IT markets during the period of IT-revolution and the consequent stock price crash. Even during the period of recovery that followed, Indian IT sector remained more closely associated with the domestic market. The integration of the Indian IT sector with the global IT market has been achieved only since 2007. During the period of the last financial crisis and the recent recovery, Indian IT sector have been completely dissociated from the domestic market. Such isolation of the sector from the other domestic sectors might provide opportunities for domestic portfolio diversification. The sector, however, is now exposed to industry specific risks.

Key words: Indian IT stock price, IT sector contagion, exploratory factor analysis, IT stock co-movement, IT sector crisis, Indian and global IT stocks

INTRODUCTION

The last few years of the twentieth century witnessed a significant development in the information and communication technology taking almost the form of, what some say is a revolution. With the advent of such an e-revolution, the composition of stock market changed significantly in the countries that experienced it. Much enthusiasm was created among the investors for the new economy, driven particularly by the assertions of the 'new economy paradigm'. The paradigm asserted the new technology and globalization to have ushered in a new economic era of faster, stable and inflation free growth and hence stronger profit. The old pattern of boom and slump was claimed to disappear leading to a transformation of the markets. Most of the future growth potential was expected to be in the new economy reducing economic significance of the other sectors. Ultimately, as claimed by the paradigm, the new economy was to penetrate other sectors of the economy. Consequently, the IT stocks had surpassed the other old economy stocks in terms of market values for a considerable period of time before they crashed to reveal their intrinsic fragility.

The price movements of IT stocks, their inherent volatile nature and their impacts on the rest of the economy have created interests among researchers. The explosion of the speculative IT bubble across the globe further raised the issue of industry-specific financial contagion. Historically,

IT stocks are found to have weak links with the domestic stock market movements. Suleimann (2003a, b) has established a strong volatility transmission channel between the American and the European new economy stocks over the period of 1999 to 2002. Qiao *et al.* (2008) used SWARCH models to analyze regime switch and regime interdependence for IT stock volatility in Canada, France, Hong Kong, Japan, Taiwan, the United States and a composite Emerging Markets (EM) index. The study found significant country effects to exist for IT stocks in the pre-bubble period. In the post-crash period, however, industry effects have been predominant in explaining the volatility switching behavior of IT stocks. Sarkar *et al.* (2009) in an inquiry of volatility transmission mechanism in Indian context found IT sector to possess a character of its own. Chakrabarti (2008) showed new economy stock prices to be bubble-determined over a period of 1999 to 2007 in Indian and the US stock markets. Sadorsky (2003) discussed the macro economic determinants of the US technology stocks over a period from 1986 to 2000. Conditional volatility of technology stocks was found to be dependent on the conditional volatilities of oil prices, the term premium and the consumer price index. However, studies in the context of IT stock price movements have been limited.

This study looks for the possible linkage of the Indian IT sector with the Indian stock market as well as with the outer world, particularly, the US and French market over a period of eleven years ranging from 1999 to 2009. If movements in Indian IT sector are associated more closely with the domestic market rather than the international market, the domestic market risk will have more significant impact on the IT stock price movements. And IT sector will be subject to the same domestic market forces like the other sectors. On the other hand, an IT sector more closely tied up with the international IT market will be vulnerable to global shocks and industry effects rather than country effects will better explain the behavior of IT stocks. Such an inquiry for the possible presence of industry-specific financial contagion is significant because over the years IT sector has emerged as a significant sector in the Indian stock market providing profit opportunities to the investors (Chakrabarti, 2008). Moreover, although huge amount of money was lost as the IT bubble was pricked, a substantial part of the investments that flowed into the economy with e-revolution, still continue to have immense social value (Varian, 2003). The study period is divided into three sub-periods. Sub-period 1 ranges from February 1999 to December 2002. This was around the period of e-revolution and the subsequent crash. The second sub-period considers the years from 2003 to 2006. Over these years, the stock prices were rising consistently. The third sub-period considers the years of recent financial crisis and is extended over the period of January 2007 to December 2009. The study is conducted for these three sub-periods so as to relate the movements of Indian IT stock prices to the differing conditions in the global stock market.

MATERIALS AND METHODS

The study considers BSE IT index as the representative of the Indian IT sector. It takes BSE SENSEX as the proxy for the Indian stock market and selects eight other non-IT, sectoral indexes available for the Indian market, namely, BSE AUTO, BSE CG, BSE CD, BSE FMCG, BSE METAL, BSE O and G, BSE HC and BSE PSU. These indexes represent eight Indian domestic sectors namely, automobile, capital goods, fast moving consumer goods, metal, oil and gas, healthcare and public sector unit. NASDAQ computer index is taken to proxy for the US IT sector and IT-CAC represents the French IT sector. The study works with the return series for each index computed from the daily data as $\ln(P_t/P_{t-1})$ over the period of 1999 to 2009. P_t and P_{t-1} are prices in period t and t-1, respectively. The returns are then standardized.

The study uses an exploratory factor analysis to explore links of the Indian IT Sector with the domestic as well as foreign market over the three sub-periods. Most of studies in the context of financial contagion have made use of VAR techniques or GARCH models. The exploratory factor analysis however is a simple, non-parametric method that could extract important information from an underlying large, correlated data set (Hair *et al*., 2009). With the help of such an analysis, any complex data set could be reduced to a lower dimension to reveal the hidden, simplified structures that often underlie it. Some studies have used exploratory factor analysis in explaining stock market co-movements. Haron and Maiyastri (2004) have used principal component analysis in modelling stock market returns. Using exploratory factor analysis, Meric *et al*. (2008) have analyzed co-movements of U.S., U.K. and Asian Stock Markets before and after the crash of September 11, 2001. Phihppatos *et al*. (1983) has provided an alternative explanation for the inter-temporal stability of international stock market relationships. Valadkhani *et al*. (2008) used factor analysis in explaining the international portfolio diversification.

The Exploratory Factor Analysis (EFA) differs from the other available dependence techniques. EFA is an interdependence technique that recognizes the dependent nature of all the variables considered and could provide a clear understanding of how different variables may act together. Under EFA, each 'observed' or 'original' variable depends on some underlying or latent 'factors' that in turn are functions of all other variables. In a model with n variables, X_1, X_2 ... X_k, each X_i could be expressed as a linear combination of m underlying factors F_1, F_2, ... F_m. The amount of variance each variable shares with others is called communality. The covariance among variables is described by common factors and a unique factor (U_i) for each variable. Hence,

$$X_i = A_{i1}F_1 + \ldots\ldots\ldots + A_{im}F_m + V_iU_i \quad (1)$$

and

$$F_i = W_{i1}X_1 + \ldots\ldots\ldots + W_{ik}X_k \quad (2)$$

where, A_{i1} is standardized multiple regression coefficient of variable i on factor j; V_i is standardized regression coefficient of variable i on unique factor i; m is number of common factors; W_i is factor scores and k is number of variables. The unique factors are uncorrelated with each other and with common factors.

The adequacy and appropriateness of applying exploratory factor analysis should be tested before the actual analysis is performed. Bartlett's test of sphericity is employed to test whether sufficient correlation exists among the variables. A statistically significant test statistic that rejects the null of population correlation matrix to be an identity matrix confirms the presence of correlation among the chosen variables. The Kaiser-Meyar-Olkin (KMO) measure of sampling adequacy examines the appropriateness of EFA. Value of KMO statistic must exceed 0.50 before proceeding with EFA.

Once appropriateness of EFA is established, we must decide on the method to extract factors and the number of factors to be retained.

Under EFA, variables are grouped by their correlation so that variables in one group are closely associated with each other. Hence, while choosing the appropriate method of factor analysis, it is important to understand how variance of a particular variable is partitioned. The total variance of a variable could be decomposed into common (shared), unique (specific) and error variances.

Common variance is that part of the variance which is shared with all the other variables. Hence, common variance, which is estimated by 'communality', increases with an increase in the correlation among the variables. Unique and error variances of a particular variable cannot be explained by its correlation with the other variables. While, unique variance is variance associated with a particular variable, error variance could be attributed to measurement error or non-reliability in data collection process. The study has used the principal component method of factor extraction that considers the total variance in the data and extract factors containing negligible proportion of unique and error variance. This method has several advantages over the other available and theoretically stronger alternative, namely the common factor analysis. The latter, while considering only the common variance, might lead to factor indeterminacy (Hair *et al*., 2009). Moreover, the complications involved in implementing common factor analysis have often led the researchers to prefer principal component analysis. However, empirical researches have revealed that both the methods will arrive at same conclusions if communalities exceed 0.60 for most of the variables (Hair *et al*., 2009).

The study uses the latent root or eigen value criterion for determining the number of factors to be retained. In such an analysis, a factor will be retained if it could account for the variance of at least a single variable. Since each variable contributes a value of 1 to the total eigen value, factors with eigen values less than one, will be discarded. The first factor extracted in this manner, will explain the largest portion of the total variance. The second factor, uncorrelated to the first one, would account for most of the residual variance and so on. Factor loadings for each variable will determine the variable's role and contribution in the structure since it is the correlation between the variable and the factor. For a structure to be well defined, the factor loadings should exceed ±0.70 in a sample of 100 or larger. Factor loadings less than ±0.40 are usually not accepted. A variable, with a high loading on one factor will be said to belong to that factor. However, cross loadings are possible where one variable will have significant loadings on more than one factor. This might make interpretation of factor pattern difficult.

Interpretation of solution could be enhanced by an appropriate rotation of the factors. Factor rotation redistributes variance from the first factor to the later factors so as to attain simpler structure. In an orthogonal rotation, the reference axes of the factors are rotated by maintaining the 90^0 angle between them. Hence, the factors are uncorrelated to each other. Orthogonal methods are most widely used. There are three major orthogonal approaches out of which VARIMAX rotation is the most commonly used technique. In this method, the sum of variances of required loadings of the factor matrix is maximized. The resulting structure is fundamentally simple with no significant cross loadings. However, since most constructs are correlated, researchers often use oblique or non-orthogonal rotation methods. The study uses that method of rotation which suits the data best.

The study then employs Cronbach's alpha as a measure of internal consistency. In theory a high value of alpha is often used as evidence that the items measure an underlying (or latent) construct. Cronbach's alpha however, is not a statistical test. It is a coefficient of reliability or consistency.

The standardized Cronbacj's alpha could be written as:

$$\alpha = \frac{N.\bar{c}}{\bar{v} + (N-1).\bar{c}} \tag{3}$$

where, N is number of items (here markets); $\bar{c}$ is average inter-item covariance among the items; $\bar{v}$ is average variance.

From the Eq. 3, it is clear that an increase in the number of items increases Cronbach's alpha. Additionally, if the average inter-item correlation increases, Cronbach's alpha increases as well (holding the number of items constant). This study uses Cronbach's alpha to check how closely related a set of markets are as a group and whether they indeed form a group among themselves.

RESULTS

The total sample consisted of 1983 observations. The descriptive statistics for each index returns were shown in Table 1.

Over the first sub-period, BSE IT fetched maximum return among all the chosen indexes. The standard deviations of the three IT indexes were much higher compared to the others with the standard deviation of the Indian IT sector returns being the maximum. Thus, during the period of e-revolution and the subsequent crash in the IT stock prices, Indian IT sector remained a high-return, high risk sector. During the second sub-period, when stock prices were increasing consistently, mean return increased for all the indexes except for the Indian IT index. While, the standard deviation of the return declined for the other two IT indexes, it fell only moderately for the Indian IT sector. The sector remained a low-return, high risk sector compared to the others. Over the third sub-period or the period of financial crisis, mean return fell for all the indexes. IT-CAC and NASDAQ computers earned very low return while return of the BSE IT index was comparatively higher. The standard deviation increased significantly for all the IT index returns and it was the highest for the BSE IT sector. Hence, during the years of recent financial crisis, IT sector remained a risky sector with moderate return.

The data set was then tested for the appropriateness of applying exploratory factor analysis for the three sub-periods.

Appropriateness of applying EFA: The Bartlett's test statistic had been significant at one percent level of significance. The chi square values had been 5983.8, 6124.6 and 5489.4 for the three sub-periods at 66 degrees of freedom. The KMO measure of sampling adequacy stood at 0.879, 0.909 and 0.883 for the three sub-periods respectively implying appropriateness of employing exploratory factor analysis over this data set.

Method of rotating the factors: VARIMAX method of orthogonal rotation seemed appropriate for extracting factors. Factors extracted by the EFA were three, two and three respectively for the three sub-periods. The correlation among the factors was found to be extremely poor for each of these sub-periods. For the first sub-period, the correlations stood at 0.16 (between the first and the second factor), 0.04 (between the first and the third factor) and 0.03 (between the third and the second factor) respectively. Similarly, for the second sub-period, the correlation between the two factors stood at 0.02. For the third sub-period, the correlations were 0.06 (between the first and the second factor), 0.12 (between the first and the third factor) and 0.05 (between the third and the second factor).

Communalities in three sub-periods: Communalities estimated common variance or the part of the variance that a variable (index return, in this study) shared with all the other variables (or, the other indexes). Communalities in three sub-periods were reported in Table 2. During the first

Table 1: Descriptive statistics for the index return (1999-2009)

	Period 1		Period 2		Period 3	
Index	Mean	SD	Mean	SD	Mean	SD
BSEIT	0.0009	0.038	0.0009	0.030	0.0003	0.023
NASDAQ computers	0.00002	0.031	0.0007	0.014	0.0001	0.018
IT-CAC	-0.0011	0.035	0.0004	0.011	-0.0003	0.016
BSESENSEX	0.0003	0.018	0.0014	0.014	0.0007	0.011
BSEFMCG	0.00002	0.017	0.0008	0.013	0.0004	0.011
BSEHC	0.0007	0.019	0.0009	0.014	0.0002	0.010
BSECG	0.00002	0.019	0.0023	0.016	0.0012	0.014
BSEAUTO	0.0002	0.017	0.0016	0.015	0.0002	0.011
BSEMETAL	0.0008	0.022	0.0011	0.021	0.0012	0.017
BSEO&G	0.0004	0.019	0.0011	0.018	0.0011	0.013
BSEPSU	0.0005	0.019	0.0014	0.018	0.0007	0.012
BSECD	-0.00003	0.023	0.0018	0.021	0.0012	0.018

Table 2: Communalities for index returns

		Extraction		
Index	Initial	Sub-period 1	Sub-period 2	Sub-period 3
BSEIT	1	0.637	0.542	0.558
NASDAQ computers	1	0.396	0.183	0.659
IT-CAC	1	0.68	0.178	0.055
BSESENSEX	1	0.642	0.733	0.893
BSEFMCG	1	0.502	0.699	0.753
BSEHC	1	0.581	0.565	0.720
BSECG	1	0.741	0.693	0.767
BSEAUTO	1	0.635	0.787	0.755
BSEMETAL	1	0.691	0.724	0.770
BSEO&G	1	0.756	0.757	0.796
BSEPSU	1	0.855	0.759	0.880
BSECD	1	0.822	0.556	0.557

Extraction method: Principal component analysis

sub-period, communalities were high for most of the variables, except for NASDAQ computers. Hence, common variance and correlation among the variables were strong. Over the second sub-period, the US and the French IT index returns had very low communalities. Thus they possessed substantially large unique variance during this period. Other variables possessed large common variances as was reflected in the high communalities. During the third sub-period, communalities were high for all the variables, except for IT-CAC. Hence, the French IT market possessed a unique character of its own.

Results for applying EFA for the first sub-period: The results for applying EFA for the first sub-period were reported in Table 3. The first factor with an Eigen value of 5.8 accounted for 48.8% of total variation. The second factor, with an Eigen value of 1.08 accounted for 9.01% of total variation in data. The third factor with an Eigen value of 1.01 explained 8.48% of the residual variance in the data.

Five Indian non-IT sectoral indexes had strongest loadings on the first factor with the value of Cronbach's alpha standing at 0.90. BSE IT had strongest loading on the second factor with a

Table 3: Rotated component matrix for applying EFA for first sub-period

	Loadings		
Index	Factor 1	Factor 2	Factor 3
BSEIT	0.141	**0.754**	-0.220
NASDAQ computers	-0.081	0.246	**-0.574**
IT-CAC	-0.083	0.205	**0.794**
BSESENSEX	0.391	**0.817**	-0.035
BSEFMCG	0.277	**0.631**	0.165
BSEHC	0.357	**0.673**	-0.010
BSECG	**0.710**	0.486	0.020
BSEAUTO	**0.618**	0.501	0.041
BSEMETAL	**0.780**	0.286	0.024
BSEO&G	**0.853**	0.169	-0.026
BSEPSU	**0.880**	0.283	-0.013
BSECD	0.508	**0.620**	0.003
% of variance explained	48.800	9.010	8.480
Eigen value	5.800	1.080	1.010
Cronbach's alpha	0.900	0.850	-0.020

Extraction method: Principal component analysis, Rotation method: Varimax with kaiser normalization, Rotation converged in 6 iterations (Strongest loadings are shown in bold)

Table 4: Rotated component matrix for applying EFA for second sub-period

	Loadings	
Index	Factor 1	Factor 2
BSEIT	**0.585**	-0.00078
NASDAQ Computers	0.045	0.325
IT-CAC	-0.16	0.390
BSESENSEX	**0.819**	0.248
BSEFMCG	0.353	**0.758**
BSEHC	**0.746**	0.091
BSECG	0.524	**0.646**
BSEAUTO	**0.882**	0.094
BSEMETAL	**0.850**	0.037
BSEO&G	**0.866**	0.077
BSEPSU	**0.867**	0.088
BSECD	**0.729**	0.158
% of variance explained	48.80	9.280
Eigen value	5.86	**1.110**
Cronbach's alpha	0.92	0.770

Extraction method: Principal component analysis, Rotation method: Varimax with kaiser normalization, Rotation converged in 3 iterations (Strongest loadings are shown in bold)

Cronbach's alpha value of 0.85. The sector had been closely associated with the Indian domestic market index and three other sectors namely, fast moving consumer goods, healthcare and consumers durable. The two other IT indexes had strongest loading on the third factor.

Results for applying EFA for the second sub-period: The results were reported in Table 4. Exploratory factor analysis extracted two factors for the second sub-period. The first factor with an

Table 5: Rotated component matrix for applying EFA for third sub-period

	Loadings		
Index	Factor 1	Factor 2	Factor 3
BSEIT	0.208	30.019	0.717
NASDAQ computers	-0.019	0.122	**0.803**
IT-CAC	-0.0039	-0.076	0.222
BSESENSEX	**0.933**	0.099	0.115
BSEFMCG	-0.038	**0.864**	-0.073
BSEHC	**0.841**	-0.087	0.068
BSECG	0.110	**0.869**	0.013
BSEAUTO	**0.863**	0.046	0.087
BSEMETAL	**0.876**	0.036	0.0257
BSEO&G	**0.887**	0.069	0.068
BSEPSU	**0.933**	0.091	0.045
BSECD	**0.744**	-0.052	-0.018
% of variance explained	48.80	9.01	8.480
Eigen value	5.80	1.08	1.010
Cronbach's alpha	0.95	0.68	0.670

Extraction method: Principal component analysis, Rotation method: Varimax with kaiser normalization, Rotation converged in 4 iterations (Strongest loadings are shown in bold)

Eigen value of 5.86 accounted for 48.8% of total variation. The second factor, with an Eigen value of 1.11 accounted for 9.28% of total variation in data.

BSE IT sector along with the Indian market index and six other Indian non-IT sectoral indexes had strongest loadings on the first factor with the value of Cronbach's alpha standing at 0.92. The two remaining Indian sectors had strongest loading on the second factor. The loadings for NASDAQ computers and IT-CAC were too low to be included in the model.

Results for applying EFA for the third sub-period: The results for applying EFA to the third sub-period were reported in Table 5. Three factors were extracted on the basis of Eigen value. The first factor with an Eigen value of 5.43 accounted for 45.2% of total variation. The second factor, with an Eigen value of 1.54 accounted for 12.86% of total variation in data. The third factor with an Eigen value of 1.19 explained 9.88% of the residual variance in the data.

The loading of the IT-CAC is too low to be included in the model. Six Indian non-IT sectoral indexes along with the market index had strongest loadings on the first factor with the value of Cronbach's alpha standing at 0.95. Two other Indian non-IT sectors had strongest loading on the second factor with a Cronbach's alpha of 0.68. The BSE IT has strongest loading on the third factor along with the NASDAQ computer index. The Cronbach's alpha stood at 0.67 indicating strong association between the Indian and the US IT indexes during the third sub-period.

DISCUSSION

In the available literature there have been only a few studies in the context of IT stock price movements. Most of these studies have considered IT stock price movements and explored the presence of financial contagion in the sector during the periods of IT bubble only (Qiao *et al.*, 2008; Suleimann, 2003a, b). The post-crash incidents in the IT sector have hardly been addressed. Moreover, the available literature suggests a financial contagion to exist among IT sectors of the

different countries at least during the period of e-revolution. The two studies made by Suleimann (2003a, b) found significant volatility contagion channels to exist among the global IT markets. Specifically, significant volatility transmission was found to exist from NASDAQ 100 to IT-CAC and NEMAX. Hence the IT stocks in the US, French and German markets were found to be linked. Qiao *et al.* (2008) found global contagion to exist among the US, Asian and European IT indexes. The study found individual country effect to disappear during the period of IT sector bubble. Wen-Chung and Hsiu-Ting (2008) examined the evidence of herd behaviour and stock price co-movement within high-tech stocks in the Taiwan market. They obtained a higher degree of directional co-movement in high-tech industries than in traditional industries. Dispersions in return and volatility had a consistent association with extreme market movements for high-tech stocks. The level of directional co-movement however, has been greater during extreme markets for all industries. Berben and Jansen (2005) considered the correlation among the stock markets of the US, UK, Germany and Japan during the period of 1980 to 2000. Moreover, they focused on equity returns at the industry level along with those at the market level. Over this period, while international integration has increased, IT as a sector has not been able to drive the movements towards greater financial integration. Rua and Nunes (2009) however, obtained a different result when they considered a wavelet analysis to explore international co-movement at the aggregate as well as sectoral level. Presence of strong co-movement was detected in the IT sectors of Japan, US and UK. Particularly, the co-movement between Japan and US and between Japan and UK has increased in the IT sector the mid-nineties. Brooks *et al.* (2003) and Brooks and Negro (2004) have also identified IT as a driving force, albeit temporary, behind growing financial integration. Bekaert *et al.* (2009) while exploring co-movements in global markets found growing significance of industry factors relative to country factors. The large growth stocks are found to be highly correlated across markets and the difference has increased over time. Zuckerman and Rao (2004) however, found the return co-movement among IT stocks during the late 1990s and early 2000 to be quite low. The co-movements were stronger only during the periods of price fall. Hence, the authors became suspicious about the high valuation of the IT stocks. Studies in context of Indian IT stocks have been scanty. Chakrabarti (2008) found IT sector to be an important sector in the Indian market over a period of 1999 to 2003. Sarkar *et al.* (2009) however, found very little volatility transmission from IT sector to the other sectors of the Indian economy. The present study is advancement over the existing literature in the sense that it seeks to explore the possible association of the Indian IT stock price movements with the domestic market as well as the international IT stock price movements. Moreover, it attempts to relate such associations, if any, to changing conditions in the global stock market over the eleven year period from 1999 to 2009. The global stock market over these eleven years has witnessed two significant crises. While the first crisis was confined to the IT sector, the second one has been most general and encompassing in nature. The behavior of Indian IT stocks revealed from this study has been quite different from what the earlier works on IT stock price movement suggest. This study finds Indian IT sector to be closely associated with the Indian market index and three other sectors namely, fast moving consumer goods, healthcare and consumers durable during the period of 1999 to 2002. The sector remained completely decoupled from the global IT sectors during the period of e-revolution. As the global stock market was booming over the period from 2003 to 2006, Indian IT sector remained strongly associated with the domestic market and for the first time over the study period it was incorporated in the first factor. Hence during the boom in the global stock market, Indian IT sector reflected the general domestic market trend. However, during the recent financial crisis and

following recovery, Indian IT sector has become completely dissociated from the domestic market. A strong association has been established with the US IT sector. Thus, over time, Indian IT sector has been gradually integrated particularly to the US IT sector and developed a character of its own that was retained even during a period of a global financial crisis. The industry specific risks, rather than domestic market risks are now more pertinent in explaining movements of these stocks.

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