



# The Journal of Indian Management & Strategy

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◀ Research

◀ Perspective

◀ Book Review

# A TRUE VISIONARY

*“You see things and you say **Why?** But I dream of things that never were and say **Why not?**”*

- George Bernard Shaw



Shri Jagannath Gupta  
(1950 - 1980)

*Also a true visionary...who dared to dream!  
He lives no more but his dreams live on....and on!*

<b>JIMS (Rohini)</b>	-	<b>1993</b>
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<b>Jagannath University (Jaipur)</b>	-	<b>2008</b>
<b>Jagannath University (Bahadurgarh)</b>	-	<b>2013</b>

*And more dreams to come!*



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## Editor's Desk

Wealth planning is a mix of tax planning, wealth protection, estate planning and business succession planning. It relates to assets, liabilities, future needs of family, education of child, marriage, important events in life and finally retirement for which a person requires to accumulate wealth to live a comfortable life. Financial planning leads to growth in a person's wealth if assets are carefully invested to give good returns. Warren Buffett wizard in multiplying his wealth advised the investors to put their hard earned savings in different investment avenues. "Do not put all eggs in one basket", he said. This means that diversification is most important and the proportion of each investment product should be decided to bring about abundance of wealth. Financial planning must be undertaken with an objective and a specific financial goal. Although financial planners help the investor to take decisions, a person should take charge of his own finances and understand and evaluate 'risk and return' because the world of financial planning is based on these two parameters where return is to be maximized and risk is minimized.

All financial planners should follow some basic techniques of time value of money and time management. They should understand the behavioral aspects of people and should possess negotiation and convincing skills. They must understand life cycle for investment and saving cycle. The alternate investments should be considered and variety of choice consists of cash in bank, fixed deposits, shares and bonds, mutual funds, insurance, gold, antiques, commodities stocks, real estate. Financial planners must determine capital requirements, capital structure, framing financial policies. It is a process framing objectives, policies and budget regarding the financial activities to ensure effective and adequate financial and investment policies. Financial planning should have cash flow analysis that determines how to save and invest each month. It should also add retirement planning for accumulating the required retirement capital and its planned lifetime distribution. We can say it is never too late to start financial planning but planning at an early age helps to accumulate more wealth.

It is important to manage wealth with ethical principals in life. Money laundering and unethical transfer of funds through tax havens make a person rich but the end result is not good. Nirav Modi, Vijay Mallaya, Arindam Chaudhary all made money in a short while but also earned the reputation of cheating people in their own country. On the contrary good ethical principles of wealth management also made Warren Buffett, Steve Jobs, Bill Gates accumulate wealth to make them ultra-high net worth individuals. There is much truth in quoting Benjamin Graham "The individual investor should act consistently as an investor and not as a speculator" to accumulate wealth.

(Preeti Singh)

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The journal provides an intellectual platform for advancement and dissemination of management knowledge and also fosters collaborative research. It has an inclusive ethos and is open to a wide range of methodological approaches and philosophical underpinnings.

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# IMPACT OF FINANCIAL DEVELOPMENT ON ECONOMIC GROWTH: EMPIRICAL ANALYSIS OF INDIA

Divya Verma Gakhar\* Shweta Kundlia\*\*

*The main objective of this paper is to study the impact of India's financial developments on its economic growth for the period 1989 to 2011. The Indian financial development is reflected by developments in stock market and banking sector. The paper aims to study the impact of both financial sectors independently as well as combined impact. The stock market development indicators and banking sector development indicators along with macro-economic reform indicators and control variables are regressed over economy's growth rate. Developments in Indian stock market have a weak and bi-directional relationship with the nation's economic growth. The stock market development measures are highly correlated with the banking sector development indicators leading to a problem of multi-collinearity in the regression model.*

**Keywords:** Financial market development, Economic growth, Bank based indicators, Stock based indicators.

The major resources of an economy are its capital and labour. India possess abundant human capital but is still evolving in the capital generation market. This paper aims to study the impact of developments in financial markets on the evolution of Indian economy for a time span of 1989 to 2011. The paper intends to capture the effects of developments in stock market and banking sector on economic growth and check whether the financial developments really drive the economic growth of the nation.

Financial markets help mobilizing the resources from those who have surplus to those who have shortage thus channelizing the resources to the most productive uses. During the initial stages of development of a country banking industry can play a vital role in performing this function as citizens might show lack of interest in investing in stock markets due to their risk averse nature. India has evolved and has shown great stock market performance and investor interests. As suggested by Sahani (2008) the stock market capitalization deteriorated in 2001 due to dot com burst in year 2000 accompanied with negative investor psychology owing to frequent stock market scams. The incident led to the maturation of Indian stock market and paved the way for various new norms and regulations in the industry. Numerous evidence suggests that finance is important for growth at early stages of economic developments. Tentatively, the evidence for stock markets is stronger than for variables on banking activity (Thiel, 2001). In this paper we propose to study the impact of stock market development and banking sector development on the economic growth of India. The impact of developments

in stock market and banking sector on nation's economic growth are studied together as well as independently. The analysis further involves certain economic indicators and control variables to examine their impact on the sensitivity of the results obtained.

## I. Review of Literature

Various scholars have studied and found that financial development and the economic growth of a country is related. It is generally observed that financial developments lead to positive impact on economic growth of the countries. Masoud and Hardaker (2012) studied the impact of financial development on economic growth of emerging nations using endogenous growth model and their results suggest that stock market development have a significant effect on economic growth. Their findings suggest that there exists stable, long-term equilibrium relationship between the developments in stock market and the phases of economic growth.

Studies such as Fisher (1933) and Gurley and Shaw (1955) have shown that the difference between developed and developing countries is that the financial sector is accorded greater status in developed countries than in the case of developing countries.

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The paper of Masoud and Hardaker (2012) is a follow up of the work of Fisher (1933) and Gurley and Shaw (1955), which tends to show that Gurley and Shaw found that financial markets contribute to economic development by enhancing physical capital accumulation. Asghar and Hussain (2014) studied the financial development along with trade openness to study the economic growth of developing countries. Their study points that the industry of finance in the developing countries are not supported by well-organized and strong financial institutions. The weak structure of financial industry in developing countries leads to misallocation of resources further paving road for poor economic growth of the country. They applied panel causality tests and panel cointegration tests to test the linkage between financial development and economic growth in developing countries for the period 1978-2012. Their study explored various specific channels such as foreign direct investment (FDI) and trade openness which lead to financial development and influence the economic growth of the country. Their study concluded that there is an evidence of strong long-run relationship between financial development and economic growth in developing countries. They also found that financial development and FDI had a bi-directional causation relation. Gregorio (1998) employs regression analysis for large cross-sections of countries and studied the relationship between international financial integration and financial development and further the relation between the financial development and economic growth. The paper highlighted on the fact that international financial integration promoted deep domestic financial markets as the analysis of the study showed that there is a positive relationship between the degree of financial integration and the depth of the domestic financial system. The study also put forward the advantages of portfolio diversification opportunities as a result of financial integration.

Calderón and Liu (2002) studied a causal relationship between financial development and economic growth for 109 developing as well as industrial countries. To achieve the main objective of the paper, Geweke decomposition test was applied on the pooled data for the period from 1960 to 1994. It was found that Granger causality from financial development to economic growth and Granger causality from economic growth to financial development coexist; and generally it is observed that financial development leads to economic growth. Their study revealed that financial deepening magnified the causal relationships in developing countries more than it does in industrial countries. Financial deepening is studied in the context of both

rapid capital accumulation and productivity growth. The paper concluded by saying that productivity growth is the strongest channel of financial deepening which drives the economic growth. Thus describing financial development as an economic growth driver.

Shamim (2007) explores the influence of e-finance technologies on enhancement of economic growth via its impact on financial development. To analyze the indirect relationship between the level of connectivity and economic growth, cross country regression analysis is employed along with generalized method of moments (GMM). It finds that better connectivity significantly enhances financial depth, which is a backbone of any country to grow. Greenwood and Jovanovic (1989) observed that growth and financial structure are inextricably linked i.e. growth facilitates development of financial structure, while financial structure in turn allows for higher growth since investment can be more efficiently undertaken. The basis of study were two economic theories “Kuznets (1955) hypothesis on the relationship between economic growth and distribution of income” and the work of Goldsmith (1958), McKinnon (1973), and Shaw (1973), which stresses the connection between “a country’s financial superstructure and its economic growth”. The findings also reveal that in the transition from a primitive slow growing economy to a developed fast-growing one, a nation passes through a stage where the distribution of wealth across the rich and poor widens.

Findings by FitzGerald (2006) suggest that it is necessary to reappraise the role of commercial banks in developing countries, which have been the traditional intermediaries between saving households and investing firms, but have recently moved into asset management and fee-based services. The move away from the financing of productive investment in general, and SMEs in particular, has been encouraged by regulators concerned for bank liquidity.

Santabárbara, Meyer-Cirkel and Dorrucchi (2009) conducted a comparative study on financial development of emerging nations by taking mature nations as benchmarks. They constructed composite indices for 26 emerging nations using twenty-two variables. The variables used in the study were grouped into three broad dimensions namely, institutions and regulations, size of and access to financial markets and market performance. Their study tries to fill a major gap in the literature, as the previous economic literature have failed to develop a comparable time series for both emerging and mature nations. Using quantitative measure, their study provides

for the scope in emerging nations in financial terms. The study found that financial development in many emerging nations have already started converging with the mature nations. Their study also found the existence of economic imbalances across nations due to the countries being at different levels of financial developments.

All of the research findings outlined above, cover important developmental aspects of stock markets and banking industry influencing growth in economic activity, providing important analytical insights into issues raised in the literature. Masoud (2012) and Hardaker (2012) identified three fundamental channels through which the functions of financial markets influence economic growth:

- 1) financial markets development mobilizes and allocates resources to their efficient use;
- 2) financial markets development may change the savings rate and hence affect physical capital accumulation; and
- 3) financial markets development increase the productivity of capital utilized in an economy.

## II. Research Design Methods

An empirical analysis was undertaken to gauge the impact of financial development on the growth rate of economic activity in India. Multiple-regression model was used for the underlying purpose. Financial development variables used in the analysis are categorized under two heads namely, stock market development indicators and banking sector development indicators. A comparative study of the influence of both the dimensions' financial development i.e. stock market development and banking sector development on the economic growth of India for the period 1989 to 2011 is done. The basic regression equation used for the purpose comprise of financial market development variables (which comprise two broad category of variables, namely, stock market development variables and banking sector development variables); macro-economic reform variables (per capita gdp growth and population growth) and conditioning information set variables (inflation rate and the degree of economy openness). Thus, the basic regression model which we aim to study in order to check the influence of India's financial development on its economic growth is specified as under,

$$G_t = a + b_1 \text{ Stock}_t + b_2 \text{ Bank}_t + b_3 \text{ pop} + b_4 C + e \quad (1)$$

Where,  $G_t$  is an average of per-capita gross domestic product (GDP) growth rate for the period 1989 to 2011, a

is intercept,  $\text{Stock}_t$  is an indicator of stock market development,  $\text{Bank}_t$  is an indicator of banking sector development,  $\text{pop}$  is the growth in nation's population,  $C$  depicts the control variables and  $e$  is the error term. The variables like  $\text{Stock}_t$ ,  $\text{Bank}_t$  and control variables are further elaborated and explained in detail as under,

### The Stock Market Development Variables

Stock markets influence economic growth of the nation by channelizing funds from where the funds are in excess to where the funds are scarce and are required, thus helping in capital generation process. Stock markets work as a channel which facilitates disinvestments and reinvestments, thus directing the finances towards the most productive uses. Stock market also promote the savings and investments which themselves are indicators of development and signify that country has risen beyond its subsistence consumption. Hence, stock markets can play a significant role in an economy's development by effectively performing their functions. The key functions of stock market are mobilizing capital between haves and have nots, providing risk pooling, and enhancing liquidity, monitoring managers, exerting corporate control and lot more. In this paper, we try to indicate stock market development in terms of its size, activity and efficiency. Thus, following measures are taken under consideration:

#### Stock Market Size

Denotes market capitalization per gdp ratio. It is an indication of the value of domestic equities traded in domestic market to gdp. Market size is considered to be proportional to the economic development as it shows the amount of funds which are actually available in the market. So, a large stock market size points to the fact that large amount of funds is at disposal of the economy or the nation.

#### Stock Market Activity or Liquidity

Activity in stock market is best represented by the ratio of total value of stocks traded on stock exchange to the gross domestic product (GDP) of the nation. This ratio is an indication of the value of stock market transactions relative to the size of economy. Liquid stock markets play a vital role in stock market development as it accelerates the process of disinvestment and reinvestment; thus tapping the funds and channelizing them to the most productive opportunities available.

#### Stock Market Efficiency

Is measured as turnover ratio which is calculated as the total value of trades of shares on stock exchange divided by market capitalization. This ratio is assumed to be good

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indicator of development and is assumed to be positively related to economic development as it determines the steadiness with which the resources are moving in the economy thus boosting the growth.

### **The Banking Sector Development Variable**

The banking industry forms a foundation for financial markets in emerging economies like India as the people in such economies are more risk averse and would prefer to keep their money safe with banks as compared to investing in stock markets. Thus bank acts as intermediary and facilitates the mobility of funds from savers to investors. Hence, it becomes necessary to study the effect of development in banking industry on economic growth. Here the progression in banking industry is studied by using two variables i.e. bank assets and bank credit to private sector as a proportion to gross domestic product.

#### **Banking Assets**

To gauge the size of banking sector the ratio of bank assets with respect to gross domestic product is taken into account. The expansion in banking assets will further lead to spur in economic growth as it shows great amount of finances available for investment.

#### **Credit to Private Sector**

This measure depicts the financial intermediary development and is calculated as ratio of the value of credit given by banking sector to the private sector with respect to gross domestic product. Banks procure authority in private sectors by lending funds to them and keep a check whether funds are optimally utilized or not thus exerting pressure on corporates to perform well, which further leads to economy's growth.

#### **Macro-Economic Reform Variables**

Various economic variables have effect on the growth of economy, albeit all such variables are not taken into consideration but two of the economic variables are incorporated in the regression equation to examine their impact. These are:

##### **Per Capita GDP Growth**

The per capita growth in gdp (in percentage) will lead to better education, better health, better living standards and wealthier citizens which will further have positive impact on financial markets because people will then save and invest the excess money they possess.

##### **Population Growth Rate**

The annual percentage change in population for the period is used as a variable. The growth in population

may have a positive or negative impact on the growth of an economy depending on the demographics of the nation. For some nations it may act as a boon as more of human capital is generated while for some nations like India it serves as a curse because the burden on the nation increases which do not have adequate resources to nurture the rising population.

### **The Conditioning Information Set Variables**

Two additional variables namely inflation rate and degree of economy's openness to trade which are used as controls in estimation are also embodied in the regression equation. A brief about these variables is explained below:

#### **Inflation Rate**

The paper consider inflation rate based on consumer price index for the analysis. Inflation may have inversely proportional relationship with the economy's financial development and economic growth rate, as high inflation will reduce the consumer's purchasing power and will force him to shell out more money from his pocket for his daily consumption needs; thus leaving him with less savings to invest.

#### **Economy's Openness**

The degree of openness to trade is computed as a ratio of summation of imports and exports to gross domestic product. It is presumed that a country which is more involved in international trade may have more information regarding the framework required for effective performance of stock market.

#### **Data Sources**

The data for the above mentioned nine variables concerning to India for the period of 23 years ranging from 1989 to 2011 were retrieved from two sources, namely, Federal Reserve Bank of St. Louis and The World Bank. The only criterion to select the timespan for the study was the availability of data for all variables for these 23 years. The data for all financial development indicators which includes stock market development variables and the banking sector development variables were extracted from Federal Reserve Bank of St. Louis website <http://research.stlouisfed.org>. The five financial market variables were procured in original form and no calculations were carried out to reach the values of variables. The values of the variables were in the form of ratios i.e. as a share of gdp. The data for macro-economic reform variables and control variables were extracted from database of The World Bank (<http://databank.worldbank.org/>). Three variables, namely, per-capita gdp growth, population growth rate

and inflation rate were obtained in original form and no computations were required to procure these variables. These three variables were obtained and used in the form of percentage. Degree of economy openness was calculated by dividing the summation of imports and exports with gross domestic product. In order to compute degree of openness in economy the data pertaining to total imports of goods and services, total exports of goods and services and gdp were obtained (in current US\$) through the database of The World Bank.

### III. Analysis, Discussion & Findings

Prior to conducting the analysis and finding out results it was quite necessary to make the variables stationary to avoid spurious correlation and regression results. Augmented Dickey-Fuller Test was carried out on each variable to make all the variables stationary and come out with genuine outcomes in further analysis. Variables were made stationary at second difference which was also statistically significant. It was observed that per-capita gross domestic product was stationary at zero difference. For other variables the differences were calculated further. The variables which were found to be stationary at first difference were degree of economy's openness, population growth rate, turnover ratio and inflation rate. Whereas variables like value traded ratio, market capitalization ratio and domestic credit ratio attained stationarity values at second difference. However, Augmented Dickey-Fuller Unit Root Test failed to attain a stationary value of bank asset ratio at these two level of differences. These results are shown in table 1.

Table 2 shows summary statistics for all the variables taken in the study for the period of 23 years spanning from 1989 to 2011. The five variables of financial market development show high values of mean such as turnover ratio (mean 103.96), banking asset ratio (mean 44.43), market capitalization ratio (mean 42.32), value traded ratio (mean 39.344), and domestic credit ratio (mean 30.188). The data for turnover is highly deviated from its mean as compared to other variable deviation. The values of skewness and kurtosis are also optimal for all the variables except for a slight abnormal values in case of turnover ratio which points to the fact that extreme values of turnover ratio are present in data. Turnover ratio shows a high value of kurtosis i.e. at 5.15 and the value of skewness is positive at 1.35 thus indicating that most of the values concentrate around the left of the mean and the extreme values lie on the right of the mean.

Table 3 demonstrates the correlation between all the variables. First row corresponding to each variable

displays its Pearson correlation coefficient while the values in second rows shows the significance of the correlation relationships between them (the value less than 0.05 suggest that correlation is significant at 5%). The correlation matrix reveals that the market capitalization ratio have a significant positive correlation with per capita growth in gross domestic product while the value traded ratio which is another stock market development measure shows insignificant positive correlation with the per capita gross domestic product growth. So the correlation matrix conveys that among the three stock market development measures only the stock market size i.e. the market capitalization proportionate to gross domestic product influences the economic growth significantly. It is also observed that both the banking sector development measures i.e. bank asset ratio as well as domestic credit ratio effect the per-capita gross domestic product growth positively but are in moderation and their impact is quite significant. A strong and very high degree of positive correlation is visible between the banking sector development variables and market capitalization ratio and value traded ratio which may indicate their behavior as substitutes in the economy's financial market. The degree of economy's openness to trade also share a positive correlation with per-capita gross domestic product growth and its effect is significant as the high levels of international trades are surely going to boost the economic activities of the nation, thus leading to progress. There is a negative correlation between population growth rate and per capita gross domestic product growth rate and shows how significantly the rising population of India is hampering its economic growth.

Table 4 exhibits the regression outcomes derived by considering the bank based indicators along with other economic indicators on the economic growth which is abbreviated as pcyg (per capita gross domestic product growth). Stepwise regression using backward elimination is applied on the data. Studying all the models of table 4 reveals that log of bank asset ratio ( $Lbar$ ) is negatively influencing the economic growth. Although the value of  $Lbar$  is insignificant in all the models, the negative relationship between  $Lbar$  and pcyg could have risen due to the hoarding of more assets by the banks and not investing them to generate returns thus leading to stagnation of economy. The models have failed to show any significant relationship between bank based indicators and the economic growth. The best model of table 4 is model 5, which exhibits the strong negative relationship of population growth with the economic growth thus shadowing the impacts of bank based indicators. This model has the highest adjusted R Square

and the best value of F-test, the population variable is very significant; thus, making this model of best fit.

Table 5 unveils the stepwise regression (backward elimination) results obtained by studying impact of stock market indicators along with other economic variables over the economic growth (pcyg). The table shows that variables natural logarithm of value traded ratio i.e. lvt\_gdp and population (pop) are significant variables having a negative impact on the economic growth of India. However, the best model is model 1 with an adjusted R square of 0.405 and the model also has the variables lvt\_gdp and pop as significant variables. Model 1 is expressed in the form of an equation as under,

$$\text{Pcyg} = -0.235\text{inf} - 1.418\text{open} - 2.914\text{pop} + 1.066\text{lmc\_gdp} - 2.586\text{lvt\_gdp} + 0.915\text{lturnover}$$

The above mentioned regression model is framed to study impact of stock market development variables on the economic growth of the nation. It was observed that stock market development indicators namely, market capitalization ratio (lmc\_gdp) and turnover ratio (lturnover) have a positive but insignificant impact on economic growth of the nation. While value traded ratio (lvt\_gdp) have a significant negative effect on the economic growth of the nation. The cause behind the negative relationship between pcyg and lvt\_gdp, could be high levels of volatility in the markets due to enormous trading of stocks. In view of finding the model of best fit various variables like domestic credit ratio, market capitalization ratio and turnover ratio were eliminated from the final regression analysis. Stepwise regression was employed in order to study overall impact of financial development on the economic growth. For the purpose a model was designed such that only those variables (out of stock market based indicators, bank based indicators and other economic indicators) were considered which came out to be significant in above regression models. The results of this model are tabulated in Table 6. The table also reveals that value traded ratio i.e. lvt\_gdp and population are the most significant variables of all that are impacting the economic growth (pcyg) and both the variables have a negative impact on pcyg. Here, the best model is model 1 with lvt\_gdp and pop being significant variables and adjusted R Square of model being 0.386. Model 1 can be expressed in the form of equation as under,

$$\text{Pcyg} = -0.335\text{inf} - 0.952\text{open} - 3.211\text{pop} - 0.697\text{lbar} - 1.237\text{lvt\_gdp}$$

From the above equation it is found that out of all the variables in the study population, a control variable has

maximum impact on economic growth of the nation. The bank based indicator (lbar) which was taken for study in this table gets eliminated by backward elimination of stepwise regression method in further models and is considered only in first model. This is because the bank asset ratio as well as domestic credit ratio enjoyed a high degree of correlation with market capitalization ratio and value traded ratio. Bank asset ratio and bank domestic credit ratio were eliminated to avoid the problem of multi-collinearity. Market capitalization ratio and turnover ratio was excluded from the final regression study as it was not providing any significant impact and also seemed to create disturbance in the model. It was observed in final regression model that the degree of economy's openness to trade, bank asset ratio and the inflation rate were highly insignificant variables to create impact on the economy's growth. On the other hand, the population growth rate and the value traded ratio play a vital role in determining the pace and direction in which the economy is progressing. Both population growth rate and value traded ratio are negatively related to per-capita gross domestic product growth. The negative relation with population growth rate was obvious but negative relation with value traded ratio (a major stock market development measure) imply that developments in stock market are a hurdle to economic growth instead of a fuel for boosting the economy's development. The result which shows that stock market development negatively impacts the economic growth of India can be related with the study of Asghar and Hussain (2014). Asghar and Hussain (2014) suggested that, "the financial system in developing countries is not backed by well-enforced financial institutions and weak financial institutions provide rooms for misallocation of resources which leads to poor economic growth". The stock market capitalization ratio though a bit insignificant have a positive relationship with the economy's growth. Thus, it can be concluded that India's economic growth have a bi-directional relationship with developments in the stock market.

#### IV. Conclusion

The impact of stock market development in India on its economic growth can be better gauged from value traded ratio as it has a greater value than the other two stock market indicators and shows a more significant effect on economic growth of the nation. So, from the first two regression analysis which were employed to study the impacts of developments in stock markets and banking industry on economic growth separately it was observed that both of them negatively impact the growth of India. One more observation was made during the analysis that the variable population growth plays a vital role in

hampering the economic growth. In all the regression models, population growth rate have the highest coefficients which is at the same time more significant than any other variables which were studied. The final regression analysis eliminates the banking sector development variables as they were highly correlated with two stock market development indicators and including them in the regression model could lead to the problem of multi-collinearity. High correlation among variables was also presumed to showcase similar behaviour across the variables. We found that value traded ratio is the only stock market development indicator which is highly significant in influencing economic growth of the nation. Although the coefficient of value traded ratio is a minute negative figure but it shows that it is quite significant in determining the effect of the stock market development on economic growth. The other variable i.e. the market capitalization ratio impact the economic growth positively but this variable is a bit insignificant. If we ignore this little bit insignificance, then we can conclude that stock market development in India have bi- directional relationship with the economic growth.

The results better corresponds to the study of Asghar and Hussain (2014), who suggested that, “the financial system in developing countries is not backed by well-enforced financial institutions and weak financial institutions provide rooms for misallocation of resources which leads to poor economic growth”.

Further scope of the paper can be to study impact of financial development on economic growth across the nations. Emerging nations can be compared with mature nations in terms of studying and measuring the extent of the influence of financial developments on the economic growth of the nations.

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Table 1

Variables	bank asset ratio	domestic credit ratio	inflation rate	market capitalisation ratio	(export+import)/gdp	per capita gdp growth rate	population growth	turnover ratio	value trade ratio
Augmented Dickey-Fuller test statistic :	non-significant at IInd difference	II	I	II	I	0	I	I	II
t-Statistic	-3.177566	-3.911666	-5.30872	-7.648369	-6.12403	-4.536237	-6.35408	-4.08	-5.92957
Prob.*	0.1215	0.0352	0.0018	0	0.0003	0.0082	0.0003	0.0053	0.0007

Table 2

DESCRIPTIVE STATISTICS: INDIA (1989-2011)									
	banking sector development variables		stock market development variables			macro-economic variables		control variables	
Variables	bank asset ratio	domestic credit ratio	market capitalisation ratio	value trade ratio	turnover ratio	per capita gdp growth rate	population growth	inflation rate	(export+import)/gdp
Code	BAR	DC_GDP	MC_GDP	VT_GDP	TURNOVER	PCYG	POP	INF	OPEN
Mean	44.43556	30.18872	42.32564	39.34478	103.9649	4.751278	1.658781	7.618831	0.30324
Median	41.13823	26.54041	33.73068	42.52492	91.02447	4.687593	1.668615	7.164254	0.255453
Maximum	65.15365	47.14732	109.8294	83.214	313.4766	8.843644	2.081858	13.87025	0.54078
Minimum	31.69369	21.62788	7.806125	4.567988	17.54002	-0.93364	1.28004	3.26256	0.149067
Std. Dev.	12.52833	8.873059	27.64562	27.87595	67.50454	2.449868	0.250893	3.36974	0.127212
Skewness	0.395533	0.755085	0.958305	0.124122	1.353328	-0.213997	-0.012474	0.299036	0.562646
Kurtosis	1.55702	2.021996	2.965838	1.658536	5.155254	2.493999	1.842319	1.814904	1.868794
Jarque-Bera	2.595145	3.102226	3.521456	1.783603	11.47231	0.420916	1.284978	1.688721	2.439832
Probability	0.273194	0.212012	0.17192	0.409917	0.003227	0.810213	0.525982	0.429832	0.295255
Sum	1022.018	694.3406	973.4897	904.9301	2391.192	109.2794	38.15197	175.2331	6.974516
Sum Sq. Dev.	3453.098	1732.086	16814.16	17095.51	100251	132.0407	1.384846	249.8133	0.356021

Table 3

Correlation matrix among variables										
		mc_gdp	vt_gdp	turnover	bar	dc_gdp	pcyg	inf	open	pop
mc_gdp	Pearson Correlation	1	.698**	-0.084	.837**	.866**	.590**	0.03	.910**	-.868**
	Sig. (2-tailed)		0	0.703	0	0	0.003	0.89	0	0
vt_gdp	Pearson Correlation		1	.597**	.781**	.719**	0.326	-0.285	.754**	-.837**
	Sig. (2-tailed)			0.003	0	0	0.128	0.187	0	0
turnover	Pearson Correlation			1	0.098	-0.022	-0.115	-.494*	0.024	-0.197
	Sig. (2-tailed)				0.655	0.92	0.6	0.017	0.912	0.368
bar	Pearson Correlation				1	.973**	.520*	-0.129	.965**	-.951**
	Sig. (2-tailed)					0	0.011	0.557	0	0
dc_gdp	Pearson Correlation					1	.492*	-0.005	.962**	-.905**
	Sig. (2-tailed)						0.017	0.982	0	0
pcyg	Pearson Correlation						1	-0.119	.552**	-.579**
	Sig. (2-tailed)							0.588	0.006	0.004
inf	Pearson Correlation							1	-0.047	0.103
	Sig. (2-tailed)								0.831	0.639
open	Pearson Correlation								1	-.964**
	Sig. (2-tailed)									0
pop	Pearson Correlation									1
	Sig. (2-tailed)									

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 4

Regression Results: Bank Based Indicators							
a. Dependent Variable: pcyg							
Model	Standardized Coefficients				ANOVA	model summary	
	Beta	t	Sig.	F		R Square	Adjusted R Square
1	(Constant)		0.871	0.396	1.923	0.361	0.173
	Inf	-0.16	-0.607	0.552			
	Open	0.102	0.08	0.937			
	Pop	-1	-0.92	0.371			
	Lbar	-0.816	-0.637	0.532			
	ldc_gdp	0.268	0.222	0.827			
2	(Constant)		1.111	0.281	2.543	0.361	0.219
	Inf	-0.164	-0.65	0.524			
	Pop	-1.067	-1.593	0.129			
	Lbar	-0.85	-0.725	0.478			
	ldc_gdp	0.337	0.415	0.683			
3	(Constant)		1.149	0.265	3.485	0.355	0.253
	Inf	-0.099	-0.511	0.615			
	Pop	-0.993	-1.572	0.132			
	Lbar	-0.445	-0.696	0.495			
4	(Constant)		1.063	0.301	5.292	0.346	0.281
	Pop	-0.914	-1.521	0.144			
	Lbar	-0.351	-0.585	0.565			
5	(Constant)		4.847	0	10.574	0.335	0.303
	Pop	-0.579	-3.252	0.004			

**Notes:** Natural logarithm of banking asset ratio and domestic credit ratio are denoted as Lbar and ldc\_gdp respectively.

**Table 5**

<b>Regression Results: Stock Market Based Indicators</b>							
a. Dependent Variable: pcyg							
Model		Standardized Coefficients			ANOVA F	model summary	
		Beta	t	Sig.		R Square	Adjusted R Square
1	(Constant)		1.747	0.1	3.492	0.567	0.405
	Inf	-0.235	-1.247	0.23			
	Open	-1.418	-1.696	0.109			
	Pop	-2.914	-2.191	0.044			
	lmc_gdp	1.066	1.607	0.128			
	lvt_gdp	-2.586	-2.099	0.052			
2	Lturnover	0.915	1.33	0.202	3.757	0.525	0.385
	(Constant)		1.506	0.15			
	Open	-1.308	-1.548	0.14			
	Pop	-2.715	-2.023	0.059			
	lmc_gdp	1.087	1.613	0.125			
3	lvt_gdp	-2.514	-2.01	0.061	3.904	0.465	0.346
	Lturnover	1.019	1.47	0.16			
	(Constant)		1.49	0.153			
	Open	-1.12	-1.3	0.21			
4	Pop	-2.078	-1.586	0.13	5.154	0.449	0.362
	lmc_gdp	0.325	0.731	0.474			
	lvt_gdp	-0.817	-1.645	0.117			
	(Constant)		2.281	0.034			
5	Open	-1.183	-1.398	0.178	6.447	0.392	0.331
	Pop	-2.53	-2.218	0.039			
	lvt_gdp	-0.925	-1.975	0.063			
6	(Constant)		2.961	0.008	10.574	0.335	0.303
	Pop	-1.014	-2.798	0.011			
	lvt_gdp	-0.497	-1.37	0.186			
	(Constant)		4.847	0			
	Pop	-0.579	-3.252	0.004			

**Notes:** lmc\_gdp is natural logarithm of market capitalization ratio, lvt\_gdp is natural logarithm of value traded ratio, and lturnover is natural logarithm of turnover ratio

**Table 6**

<b>Regression Results: Based on All Indicators</b>							
a. Dependent Variable: pcyg							
Model		Standardized Coefficients			ANOVA F	model summary	
		Beta	t	Sig.		R Square	Adjusted R Square
1	(Constant)		2.568	0.02	3.761	0.525	0.386
	Inf	-0.335	-1.611	0.126			
	Open	-0.952	-1.037	0.314			
	Pop	-3.211	-2.687	0.016			
	Lbar	-0.697	-1.013	0.325			
	lvt_gdp	-1.237	-2.436	0.026			
2	(Constant)		2.604	0.018	4.438	0.497	0.385
	Inf	-0.247	-1.308	0.207			
	Open	-1.331	-1.587	0.13			
	Pop	-2.893	-2.507	0.022			
	lvt_gdp	-1.205	-2.376	0.029			
3	(Constant)		2.281	0.034	5.154	0.449	0.362
	Open	-1.183	-1.398	0.178			
	Pop	-2.53	-2.218	0.039			
	lvt_gdp	-0.925	-1.975	0.063			
4	(Constant)		2.961	0.008	6.447	0.392	0.331
	Pop	-1.014	-2.798	0.011			
	lvt_gdp	-0.497	-1.37	0.186			
5	(Constant)		4.847	0	10.574	0.335	0.303
	Pop	-0.579	-3.252	0.004			

# SOURCES OF NEWS FOR TODAY'S YOUTH

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*With the advent of the internet the world of communication media has undergone a sea change. And one of the one major roles that media play is that of delivering news to everyone. The new media namely, the internet, has also started delivering news. And the youth of today are more comfortable in using the Internet than the older generations. As a result, they also access news more through the internet than the conventional media. A study was conducted among the college students in the Indian city of Gujarat to find out their preferred source of news. A questionnaire was distributed to 55 respondents which included both men and women. The key finding of the study was that internet was the most preferred source of news for the youth. They liked it for the fact that news at real time can be accessed on this medium at their time of convenience and also that old news is also accessible in the archives section.*

**Keywords:** News consumption, News on internet, New media, Youth and news.

Today's world is moving very fast. There is a lot of information and news available to youth through different mediums. They need a handy and effective medium to access news. With the increasing availability of new technology and high bandwidth, gathering news has become very easy. Today, there are newspapers, television, online newspaper sites, radio, e-newspaper, blogs, social media platforms like WhatsApp, Facebook, Twitter and so on. Now, there are two types of media-traditional media consisting of print, radio and television and new media consisting of all online news sources. With so many mediums to access news, people have stopped relying on any one source. The youth is surrounded by gadgets. Reading the newspaper in the morning is no longer a habit possessed by many. One can access news during any time of the day while doing anything. The same news can reach the consumer through multiple media. This has made a significant impact on the news gathering behavior of the youth. If looks at the entire spectrum of news distribution, then it seems that the new sources of news have slowly diminished the share of the traditional media in news dissemination.

## I. Review of Literature

According to a survey conducted by the American Press Institute, it was found that younger people have a different news consumption pattern compared to the older generation. They are more interested in breaking news that occurs instead of focusing on gathering news on a daily basis. Fifty-five percent of young adults said that they would read the follow up on breaking news in the previous week of the survey compared to their older

counterparts (25 percent) who said that they are more interested in news in general than just in breaking news. The study also found that while young people shared the same interest level in a wide variety of topics, they turn to mobile phones to get access to news. The older lot still prefers to gather news from television, radio and print media ("Social and demographic differences in news habits and attitudes," 2014).

The study also tried to find out if there is a relationship between ownership of mobile phone with its usage to gather news. However, it found that while 76 percent of young adults (18-29 years) and 84 percent of older adults (30-39 years) own mobile phones and said they also use it to gather news. On the other hand, only 59 percent of adults in the age group 40-59 years and 37 percent of adults above the age of 60 years said that they used their mobile phones to gather news.

Other than mobile phones, websites are also a preferred source of news for the younger adults. The study found that 71 percent of young adults belonging to the age group 18-21 years accessed websites to gather information compared to only 21 percent of the senior-most adults (60 years and above). When asked about which is their most trusted source of news, the most preferred source was from a news organization. The younger group also expressed a preference for social

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media to access news as well. A substantial 13 percent of the 18-29 years' group said that they preferred social media medium of source of news compared to 3 percent reported by all other groups.

In another study, 1000 young American leaders were asked to give ranking to a list of news sources that they accessed (Singer, 2011). The sources of news listed included cable news (Fox, CNN, etc.), websites of news organizations (NBC, CBS, etc.), blogs, evening news of major networks and newspapers and magazines, schools, discussions with friends and family and from comedy shows like The Daily Show and Tonight Show. When the responses were analyzed, it was found that websites of news organizations were ranked number one (25 percent), followed by cable news (20%) and the third ranked source was newspaper/magazines with 15 percent. It was surprising to note that friends and family was given a higher rank (12 percent) than the evening news of major news channels (11 percent).

The least popular source of news was comedy shows and blogs (each with 6 percent). In an analysis ("Young People Are Fleeing TV As a Main Source of News," n.d.) of the Pew Research Center's report ("Amid Criticism, Support for Media's 'Watchdog' Role Stands Out," 2013), 72 percent of people in the age group of 18-29 years said that television was one of their top two sources of news in 2001. When the same question was asked in 2013, the percentage of people fell to 55 percent. The major source of news today is the internet for everyone under the age of 50. In 2013, even people belonging to the age group of 30-49 years said that they got as much as news from internet as they did from television.

The study also found that people who sit down and watch news on a regular basis are older. Around 50 percent of people above the age of 65 said that they watch cable news regularly while less than 25 percent people under the age of 30 said so. The advent of internet has been credited with the change in the pattern of news consumption (Xiaoming, Nainan, & Cherian, 2014). It has increased the number and the types of sources of news for people and has also brought down the cost of acquiring news and engaging in political discussions (Tewksbury, 2003). Another study found that internet has provided more opportunities for political participation, including online voting, opinion survey, debating and blogging. Internet was hence viewed as a facilitating agent in democracy (Ward & Vedel, 2006). Internet was found to be more effective in generating participation in political discussions among young people (Graber, 2001; Shah, Kwak & Holbert, 2001) compared to traditional

media. Social media platforms on the internet have become a big source of information on politics and news (Robertson, Vatrapu & Medina, 2010).

In 2007, a study conducted by World Association of Newspaper (WAN) revealed that people considered internet to be their first choice for news and information. It can hence be considered to be a very influential political news media. Young people depend on internet for various purposes, being a source of news being one of them (Lee, 2006). One reason behind this is that young people are more comfortable in reading news online compared to older people (Vissers & Quintelier, 2009).

The WAN Young Readership Development Project (2007) revealed that young people listed discussion with friends as the top source for news and information, ranked higher than TV and newspapers. In particular, social network in Internet such as Facebook, Myspace, twitter, etc. appear to be the key sources spreading news for youngest people.

### **Research Objectives**

- 1) To understand the news gathering pattern of youth
- 2) To find out if the mainstream media is losing its influence as a source of news for youth.

For the purpose of this study, news has been defined as current affairs and general topics covered by newspapers and television news channels. Also, all people who fall in the age group of 19-25 years and study in English medium students in colleges based in Ahmedabad will be considered as youth in this study.

## **II. Research Design & Methods**

Quantitative methods emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys or by manipulating pre-existing statistical data using computational techniques. A questionnaire was designed with both open and close-ended questions and was administered through internet. A total of 55 respondents filled up the questionnaire. Both male and female students were included in the study.

## **III. Analysis, Discussion & Findings**

### **Source of News**

When asked about their sources of news, the respondents were given the option of selecting a single source or a bunch of sources of news, whatever was applicable. The

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most popular source of news was the combination of internet and printed newspaper (31 per cent). The second-most popular option was Internet and television with 22 per cent).

#### **Frequency of News Access**

Around 25 per cent of the respondents said that they accessed news multiple times in a day and 22.5 per cent respondents said that they access news once in a day.

#### **Location of News in the Internet**

Most people (22) said that they access news through social media platforms like Facebook and WhatsApp. A considerable population said that they read news from the e-version of the newspaper. Only two people said that they received news from blogs.

#### **Source of News: Online or Television**

Almost 73 per cent said they accessed news on internet and only 27 per cent said they accessed news from television.

#### **Choice between Online News and Printed Newspaper**

A majority of people (83.5 per cent) youngsters preferred online news to printed newspaper.

#### **Choice between Television and Print News**

When asked about their preference for getting news between television and printed newspaper, 65.5 per cent respondents said that they preferred television.

#### **Reasons for Preference for online news over printed newspaper and television**

The respondents were asked for reasons behind their preference for online news over printed newspaper and television. Around 36.4 percent said that they preferred it because it can be accessed during all times of the day. The second largest group comprising of 20 percent respondents do it because it is a faster medium. The third group comprising of (16.4 percent) access online news because they can search for the exact news that they want to know. Around 11 percent people do it because the Internet is easy to access. The other reasons cited were that one can also access past or archived news, one does not need to carry anything extra to access news online and some also found it to be cheaper than television and print.

### **IV. Conclusion**

Looking at the responses received, one can see that Internet is definitely the most preferred medium of news access with 30 percent respondents. While these people

used only Internet to access news, there are 66.4 percent people who accessed other sources of news in addition to Internet. So people use Internet as a sole source of news as well as to complement television and print newspaper. Another interesting trend that emerged from the study was that a huge majority of youth accessed news multiple times in a day. This means that real time reporting has changed the news seeking behavior of youngsters and they have developed a habit of accessing news all throughout the day unlike the older generation who used to read the newspaper in the morning and watch the evening news on television.

In this study, it emerged that internet was the most popular source of news, followed by television and then print newspaper. The fact that one could access news when it was convenient to do so is the major reason behind the popularity of internet. Also, internet has the additional advantage of providing access to old news as well in the archive sections. Hence, based on this study and its findings, one can conclude that the mainstream sources of news. i.e., television and newspapers are losing their influence on the youth.

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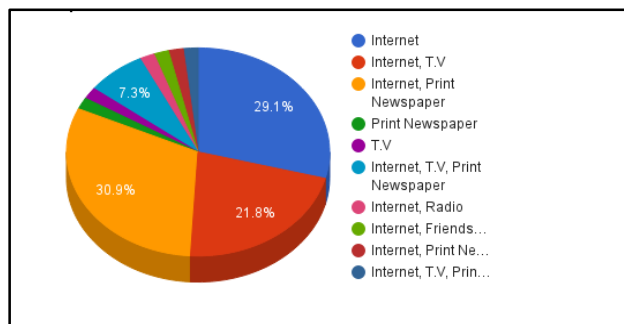
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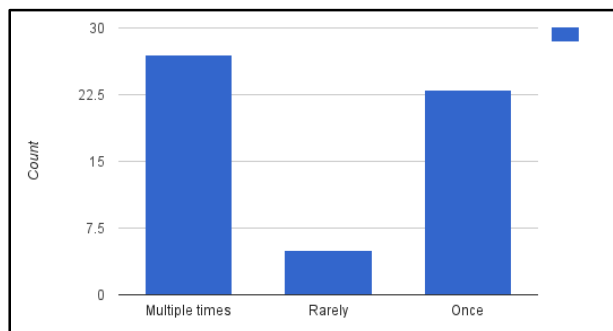
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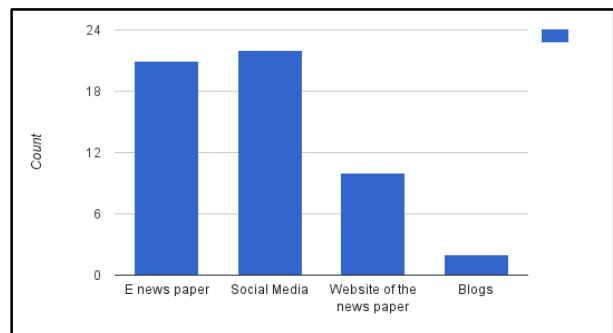
**Figure 1: Sources of News.**



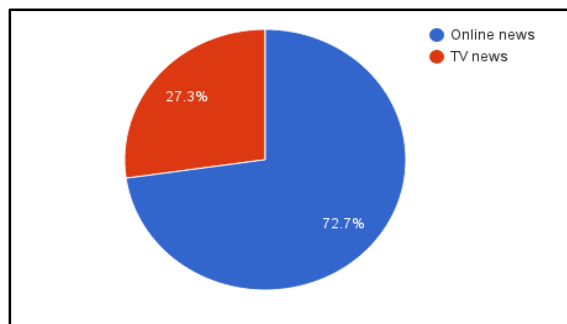
**Figure 2: Frequency of News Access.**



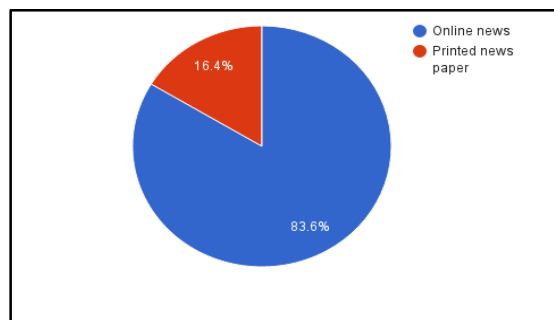
**Figure 3: Location of news in the Internet.**



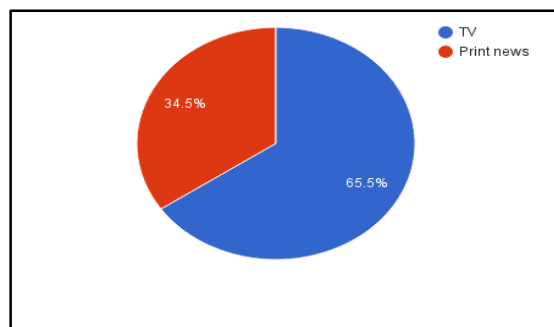
**Figure 4: Source of News: Online or Television.**



**Figure 5: Choice between Online News and Printed Newspaper.**



**Figure 6: Choice between Television and Print News.**



# DEVELOPMENT OF OPTIMAL INDIGENOUS MODEL FOR AUTOMATED TEST LIFE CYCLE (ATLC) – IN LOCAL SOFTWARE INDUSTRY

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*Test Automation is an essential concept that software industry must recognize to ensure quality in its products. Today, test automation is executing in parallel to manual testing in software development lifecycle to ensure are education in time, cost and quality. It is considered a key to obtain more success. The study is compiled to focus on the impact of test automation practices on software project success of local software industry with a mediating role of organizational culture and quality improvement. Also, the effect of test automation introduction on quality of development in a software project is taken under consensus and debate. This study referred as a quantitative study. The questionnaire was adapted from prior studies to evaluate Automation Testing Lifecycle (ATLC) practices and performance. The employees of software houses were taken as population and the maximum population was targeted to get authenticated results. Using a random sampling technique, the survey was conducted at local software houses. Multiple statistical and correlation analysis was performed with SPSS 17.0. The results revealed the effects of significant ATLC practices and an optimal model is created through the findings of the survey. The conclusion and recommendations are suggested after the analysis and further research areas and implication of the study are highlighted. Future recommendations and limitations based on the self-analysis are also proposed for additional research areas suggestions for future work.*

**Keywords:** Automation testing, Information technology, Manual testing, Product performance, Software industry.

Software testing includes the identification of the errors and code bugs, analyzes the bugs, remove the bugs and retest the software. It provides verification and validation processes. Verification shows that whether we are building the right system? And validation shows that are we making the system, right?

It involves the debugging process too that is the methodical process of findings and reducing the number of bugs or defects in a computing system. Software testing is investigating the information related to the quality of the IT product or software under the test. Test techniques include the process of executing a program or an application with an intention to explore the bugs or relevant faults of the software. Whether the software meets the requirements delivered by the customer, respond correctly to all inputs, and perform functionalities on time—all these properties are ascertained through testing. Manual and automation testing both helps in finding the results of tests. In today's world, instead of handy hard work, everything is shifted to automation. Due to laborious task and time consumption to do it manually, test automation offers a practical approach to produce efficient results in less time. Same is the case with testing of software. 'The first rule of any

technology used in business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency.' Test automation uses special software or tools to put a control on the execution of tests and analyze the actual outcomes with the predicted results. Many companies have taken steps to convert their manual testing system to automation by following the automation testing. Sometimes they get failed in achieving it; the failure is due to the improper usage of the process, tools. Automated testing tools and methodologies are evaluated and implemented in different companies. Automation testing is cost effective and it does not replace the manual testing. It can be considered as an addition to the testing process. Erich Gamma and Kent Beck developed the unit of an automation unit testing framework for Java.

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Web-based automation testing and tools decrease the repetitive use of tests and make automation efficient. Test automation provides many benefits including reusability, repeatability and saving of execution time of the tests. Automation testing is also used as dynamic structural test generation technique. Automation Testing Life Cycle (ATLC) is a structured test method which involves the multi-level process and niceinterlink of the activities that are required to utilize an automated test tool, development of the test design and execution of the test cases and for the management of the test data and the test environment. The emphasis is primarily on the change in the software industry practices. The current study on local software industry will deal with the exploration of essential methods followed by the IT companies in implementing the Automation Testing Lifecycle (ATLC). Furthermore, it will help in acquiring an optimal model for the Automation Testing Lifecycle (ATLC) which can lead to better software product performance and project success for future implementation of ATLC. According to the Elfriede Dustin (2000), ATLC invoked to give support to the hard work needed for automated test tools in any multi-stage processes. Automated Testing Lifecycle (ATLC) is comprised of six primary phases. Organizational culture also influences the implementation of the Automated Testing Lifecycle (ATLC). In Pakistan, there are still many areas of research left related to the automation testing life cycle and its implementation. So, there is a great need to design a minimized approach towards the implementation of automation testing in the software development lifecycle (SDLC). In this study, the impact of Automation Testing Lifecycle ATLC on the success of a project will also be studied and will be analyzed as per requirements of the study. To accomplish they need to shift the system to automation. While knowing the need software professionals may not know what is involved in the introduction of an automated test tool to a software project.” According to the market research, test automation is declared as the significant area for the investment in 2013. There are few studies made regarding the implementation of a model of Automated Testing Lifecycle (ATLC).

### Research Gap

The Concept of this study is originated from Cronbach. It is based on the “The use and importance of critical significant phase of Automation Testing Lifecycle (ATLC) need for successful implementation of lifecycle through a quantitative survey of different organizations locally that deploy test automation”. Secondly, “To create an optimal model based on the survey’s results to anticipate the efficiency and effectiveness of automation

process at different stages of the project.” The lifecycle in this will be used as automation testing lifecycle (ATLC) for our study. It will be taken as the base element for the investigation.

It is also found that “there is no clear, detailed guideline on how to design implement and maintain an automated test execution system in a way that keeps the technical debt on an acceptable level and provides the organization maximum benefits through the system.” The model presented in this study does not capture the mediators that may influence the relationship between automation and project success. The rationale of this study is also taken from Dudekela M who provided a call “to conduct surveys to inquire about the potential of the Automation Testing Lifecycle (ATLC) in software projects to get feedback from the local industry”.

## I. Review of Literature

### Concept of Test Automation

Software automated testing is the process of executing a program with the intention of finding errors in the code. It is the process of exercising or evaluating a system or system component by manual automatic means to verify that it satisfies specified requirements or to identify differences between expected and actual results. Software Testing should not be a distinct phase in System development but should be applicable throughout the design development and maintenance phases. “Software testing is often used in association with terms verification & validation”. The objective of automated testing is to simplify as much of the testing effort as possible with a minimum set of scripts. If unit testing consumes a large percentage of a quality assurance (QA) team's resources, for example, then this process might be a good candidate for automation. Automated testing tools can execute tests, reporting outcomes and comparing results with earlier test runs. Tests carried out with these tools can be run repeatedly, at any time of day. In the present-day scenario there is a need for accelerated software development. Automated testing processes through which thorough and fast testing can be done become. This quality of automated testing has made it an essential part of software development. This has become more important than ever before given the need to accelerate software development and reduce the time to market in the fast-changing business environment. Automated software engineering applies computation to the software engineering activities and the goal is to fully or partially automate the activities. Automation develops test scripts that will be used later to execute test cases instead of humans. Automated Testing is used in the software

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industry to overcome the limitations caused by the manual testing. Automation testing also refers as test automation is a process of generating scripts and usage of software to test the software. The reason of the introduction of automation testing is the slow execution speed and less reliability of the manual testing. Systematic and effective fault revealing strategies and methodologies are needed to be defined automatically in fact 100% automated testing is required to improve the quality of a modern system. The vision of automated testing aims at 100% automation. Studies are conducted to improve the quality of the software product by introducing the concept of automation testing.

The difference between two categories of software testing is investigated providing recommendations that automated software testing should be used to prevent new errors in the already tested working modules while manual testing is better used for finding new and unexpected errors. The main aspect to transiting from automation testing to manual testing is the flexibility of the application by 16 times improved test execution and ability to identify all faults found by the previous manual tests. In contrast to manual testing, automated testing automates not only test case execution but also test case generation and test results verification. When software testability is addressed, the design does not support full coverage automated testing. Several researchers used the test automation tools for better performance and results. An industrial case study about test automation and test suite maintenance are presented in the context of Learning Content Management System. A design of an automated testing tool is also proposed to analyze the existing automation tools. A new automation framework is integrated by selenium and meter to efficiently improve the extensibility and reusability of the automation test. architecture is designed related to the automation testing is created for open participation and interchangeable components. It allows the reusability of the existing testing framework and execution engines. Model-based test automation approach that combines the model-based testing with a framework for automated test script design is evaluated and studied showing benefits including Greater coverage, Shorter cycle time and easy maintenance. Languages are designed to express test scenarios for automation testing.

The research results are reported in the form of case studies and experiments, but at the same time there is a need to explore what the software industry at large experience about automation testing limitations and benefits. When test automation is taken to a higher level, the automation requires some system which helps in

creating, executing and maintaining test cases easily, this sort of system match the definition of the framework. Papers are presented to provide an overview of automatic test data generation. The basic objective of such papers is to acquire the basic concepts related to automated test data generation research. The different implementation techniques are described with their relative merits and demerits. The future challenges and problems of test data generation were explained. Finally, it is described the area where more focus is required for making automatic test data generation more effective in the industry. Test automation is identified as 100% dream in her map for test research from 2007 and test automation is the best way of analyzing the complexity of the software. The importance of test infrastructure Testability maturity model is discussed by and it is claimed that test system is paramount in testing and must be addressed in any process improvement model. Another test process improvement model TPI that uses a certain number of checklists to define the maturity levels is also already designed. According to the requirements of the ISO-IEC 15504 standards requirements a new definition of the testing model is introduced.

Literature reveals the need to influence the test team to adjust the automated test in the software system systematically and basic implementation of embedding automation testing is still under work and research. Many organizations are unable to design proper automation programs which cause failure in implementing test automation in the software system. Since the introduction of the test automation in 1994, the method which was based on the keyword based method has become the most dominant approach in Europe. Studies and papers are published in which automation testing is performed using Software testing tools known as “Selenium”. It revealed that the test cases can easily be generated using software tools. Automation software testing is the best way to increase the effectiveness, efficiency and coverage of software testing. Automation of software is done using program analysis. Code description is also used in transferring the manual testing codes to automation testing. (Patrice Godefroid & Pell de Halleux, 2008) A report is presented to review the results of an industry market research survey commissioned by Work soft Inc., and performed by an independent third party to study the state of test automation in operating companies.

## II. Research Design & Methods

To achieve excellence in software product development and to produce reliable, efficient, maintenance and highly optimized software products, the IT practitioners are

becoming aware of Quality improvement and Software Process Improvement. Process Improvement resulted into the introduction of a new wave of products for process modeling, evaluation and improvement. To help software process improvement, there are several models, such as CMM and ISO. These models evaluate the software product, project, quality, and drawback. All purpose is to control and optimize the software process. A software process model was developed by which were adapted to cater process measurement and management needs of multi- products. Process improvement goals must be aligned to performance which should be linked directly with business goals and process. Many researchers started to work on process improvements projects. According to the study of Lee and Ham, process improvement from organizational change around resource utilization is evaluated. In software engineering, a software development methodology (also known as a system development methodology, software development life cycle, software development process, software process) is a division of software development work into distinct phases (or stages) containing activities with the intent of better planning and management. It is often considered a subset of the systems development lifecycle. The methodology may include the pre-definition of specific deliverables and artifacts that are created and completed by a project team to develop or maintain an application. It also assumes that the process, which governs how the software development is managed, can be enhanced to deliver software on time and within budget.

The quality must involve the customers but the quality is conformance to customer's expectations and requirements. (Crosby)Quality with automation is regarding few errors present in a software product. Improves the quality of product and makes its performance more effective and efficient. Quality is enhanced by the introduction of automation in a software project. Additional research is needed to analyze the improvement of software quality. Software organizations with increased discipline and improved software design and testing skills increase the reliable production of products and maintenance of quality software.) Study related to the method used for the performance improvement for test automation is demonstrated integrated into Java compiler.

Automation of testing phase offers a potential source of saving across the lifecycle. Automation using the scripting techniques can provide a saving of time and cost for the overall software testing automation process. According to the literature available, automation offers

benefits which involve the improvement of quality and reduction of time effort and schedule. An analysis id drew which showed that test automation is helping software development to achieve improved quality of the software products. Six best practices are outlined that help in building a strong foundation for test automation process to promotes high software quality. It enables the improvement of accuracy of tests, runs tests faster and tests the code more efficiently.

Hewlett-Packard's TQM focuses on areas which include management commitment, leadership, customer focus, total participation and systematic analysis which are termed as the critical factors of the automation testing lifecycle (ATLC). These factors lead to the improvement of quality, efficiency and responsiveness. A major premise of a quality management environment is an emphasis on continuous improvement. The approach to constant growth is best illustrated using the PDCA cycle, which was developed in the 1930s by Dr. Shewhart of the Bell System. The cycle comprises the four steps of Plan, Do, Check, and Act. It is also called the Deming Wheel, and is one of the critical concepts of quality. Software development includes four steps listed as Plan, Do, Check and Act cycle. The plan defines the goal and the plan for achieving that goal. Do/Execute depending on the plan strategy decided during the planning stage we do execution accordingly in the phase. Check/Test ensures that we are moving according to plan and are getting the desired results. Act during the check cycle if there exists any issue takes appropriate action accordingly and revise on the phase again.

### **Concept of Software Project Success**

Models are developed for the exploration of criteria required for project success. The model suggested six co-related measures of success that include project quality, information quality, user satisfaction, individual impact. Proposed a model that provides for specific antecedents of the software project success. It included system quality, information quality, perceived usefulness and information system use.

### **Organizational Quality Culture**

Organizational culture is a basic pattern of shared assumptions, values, and beliefs considered to be the correct way of thinking about and acting on problems and opportunities facing the organization. Organizational culture is regarded as one of the most influential predictors of both IT performance and overall performance of the organization. The notion of organizational culture has been critical in the study of organizational behavior for the past decade. Quantitative

assessment of corporate quality culture is studied as a base for assessing person-situation interactional constructs.

### Theory of Management

The principles of Henry Fayol presented in 1917 which involves the division of work-specialization encourages continuous improvement, both regarding skill and methods, Unit of direction-employees should be aligned towards a common goal for the sake of organization progress and projects success is the relevant principles to our study. Systems Approach developed by Eric Trist deals with the integration of technology and employees within an organization. This theory is also relevant to our study as test automation is the introduction of new technology in the organization. As people are also needed for implementing test automation in the organization, so this approach to complex organizational work design recognizes the interaction between the people and technology in workplaces. It also provides an effect on the productivity of the organization which in our study is the project success.

### Hypothesis Development

**H<sub>1</sub>:** Implementation of Automation Testing Lifecycle model (ATLC) has a significant positive relation with software process improvement practices in the local software industry.

**H<sub>2</sub>:** Organizational quality culture in the local software industry leads towards project success.

**H<sub>3</sub>:** Organizational quality culture helps positively in effective implementation of the test automation which mediates and enhances the relationship.

**H<sub>4</sub>:** Software Process Improvement plays a mediating role in influencing the effectiveness of Automated Testing Lifecycle (ATLC) which helps to attain project success.

**H<sub>5</sub>:** Test automation has a significant positive impact on software project success.

The list of software houses is obtained from PICB website. The population frame of this study consisted of all software engineers and software testers recently working at software houses, who have had an experience with national and international market. To enhance the reaction rate and to help the respondents, approved access to the derived software houses was acquired on time through personal references. The questionnaire with missing information and portfolio were dropped and 220 questionnaires were distributed in the software market. The respondents answered 201 questionnaires. During coding the gathered data, 19 surveys were exempted by

the software developers. Therefore, 201 surveys were recorded and made the response rate of 89.2%.

## III. Analysis, Discussion & Findings

### Reliability Analysis

Cronbach's Coefficient Alpha is the most commonly used test for internal consistency reliability. It is used as a test indicator to determine the reliability of the measurement scale for each dimension of service quality, perceived service value, passenger satisfaction and behavioral intentions. For this purpose, Cronbach's alpha is computed using SPSS 17. The Cronbach's alpha ranges between 0 and 1, where 0 shows that internal reliability is highly lacking and 1 indicates ideal internal reliability. Higher the value of Cronbach's alpha, higher will be the reliability of the research instrument. It is accepted to have 0.7 or higher. As the value of Cronbach's alpha is 0.859 greater than 0.7. So, this instrument is reliable to use for the study.

### Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is employed to develop a measurement model that achieves an adequate fit to the data. It is used to test the validity of the constructs in the study and adequacy of the measurement model. The figure 2 below represents the CFA diagram of the model:

The analysis is carried out to establish the interrelationship among the dependent variable "Project Success" and the Independent and mediating variables. Table 4 shows the results of the correlation analysis. The table includes the value of Pearson Correlation (r), Significance Level (p) and the sample size (n). Considering the significance level, the results show that relationship of dependent variable project success (Project) is significant with all variables. The values of Pearson correlation show the strong correlation among all the independent variables and the dependent variable. The table indicates that every variable in the model has positive relationships with the other variables as there is no negative coefficient.

### Multiple Regression Analysis

#### Model 1

To check whether Test Automation act as a mediator between Organizational Quality Culture and Project Success, proposed four steps are performed. This method is carried out using SPSS Macro. Steps are satisfied then there is a partial mediation or full mediation exists between the dependent variable and independent

variable. Value of adjusted  $R^2$  i.e., 26.7% which tells the variability explained by the dependent variables.

### Model 2

To check whether Software Process Improvement act as a mediator between Test Automation and Project Success, Baron & Kenny (1986) proposed four steps are performed. The mediated and un-mediated models are as follows:

### Interpretation

- Table indicates significant relationships among all the variables in the model.
- Test Automation has a positive significant relationship with Project Success.
- Test Automation is significantly related to Software Process Improvement.
- Software Process Improvement is significantly related to Project Success.
- The path  $c$ 's is also found significant at 0.05 level of significance.

Hence, Passenger Satisfaction acts as a partial mediator in the relationship of Tangibles and Behavioral Intentions. One of the objectives the current study on local software industry is to deal with the exploration of significant practices followed by the IT companies in implementing the Automation Testing Lifecycle (ATLC). Furthermore, it is to help in acquiring an optimal model for the Automation Testing Lifecycle (ATLC) which can lead to better software product performance and project success for future implementation of ATLC. With this intention, the five dimensions of software quality which are Project Planning, Automation Requirement 1, Automation Requirement 2, and Automation Environment and Automation Verification. The perceptions are measures for each of the five dimensions of software testing quality. The following segment presents the discussion on the trends found in the opinion of testers about the implementation of automation testing in the software product.

The first indicator of phase one is Project Planning in the study. This period is primarily the thinking process about the requirements of the software. Project planning is inherently uncertain as it must be done before the project is started. Therefore, the duration of the tasks is often estimated through a weighted average of optimistic, normal, and pessimistic cases. The critical chain method adds "buffers" in the planning to anticipate potential delays in project execution. The study showed that the item is fit in the lean model of the automation testing. The third measurement criterion of test automation cycle

is Automation Requirement 1. It includes the specific details:

- Software under Test
- Tools and environment
- Test management
- Organizational situation
- Automation architecture.

The weight of the variable that is 0.89 shows that the phase is crucial for the test automation cycle. The tester acquires all the necessary requirements from the customer and tries to get the exact idea of the customer.

Automation Requirement 2 is the third test automation phase dimension. All the architectural and diagrammatic description of the requirements if evaluated by the tester in this phase. The weight value of the variable made it significant in the study and calculated the value close to 0.7. The fourth dimension is Automation Environment. The mean value reported is 3.10 showing a positive perception towards providing an implementation of the requirements in the testing lifecycle. The significant value 0.00 of these variables with relationships with other variables shows the importance of this phase in the software testing life cycle.

## IV. Conclusion

This study is a significant contribution to the area of software testing, as little literature on the software industry of Pakistan in general and particularly in the context of automation testing was available. The proposed research is very significant in the ways to provide contributions that it discovered the important practices of the local software industry for the implementation of the Automation Testing Lifecycle (ATLC) in the Software Development Lifecycle (SDLC), it exposed whether implementation of Automation Testing Lifecycle (ATLC) helps in achieving project success. Finally, it also focused on creating an optimal indigenous model for Automation Testing Lifecycle (ATLC) for future short time implementation. It exposed whether implementation of Automation Testing Lifecycle (ATLC) helps in achieving software process with more appropriate improvements. It explored the effect of organizational quality culture in implementing Automation Testing Lifecycle (ATLC) in a software project. Furthermore, Sobel test proves their significance too. It was also shown that "testing" is the most important attribute while selecting the software.

This is the first study in the software industry that is focused on the mediating relationships of software

quality process and organizational quality culture among the test automation and project success. This insight will help management of software industry to take effective decisions in improving software quality of testing and other quality improvements in the developments.

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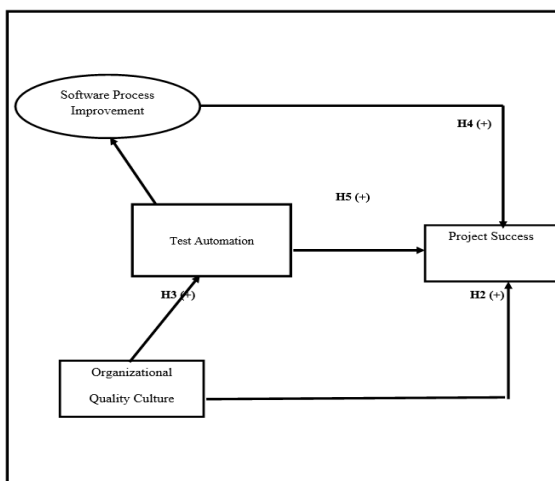
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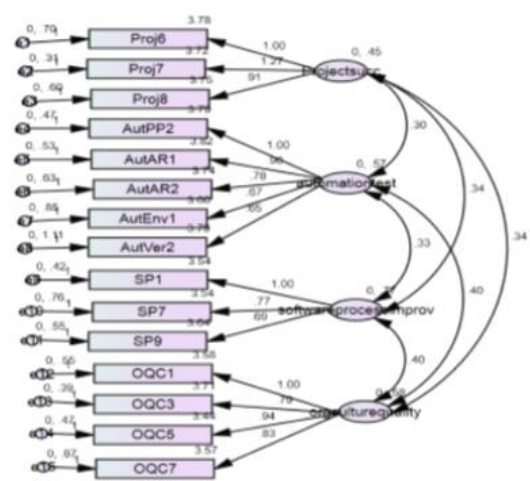
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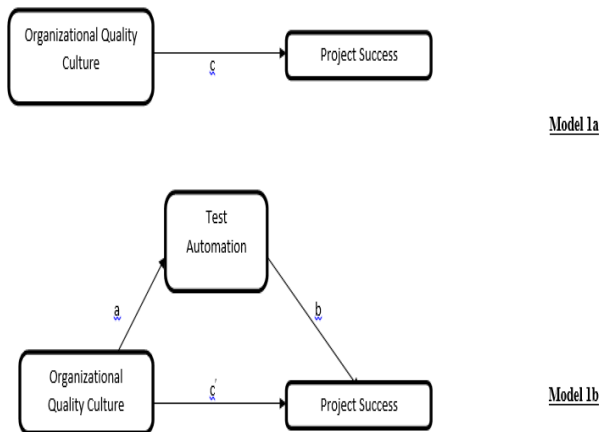
**Figure 1: Conceptual Frame Work**



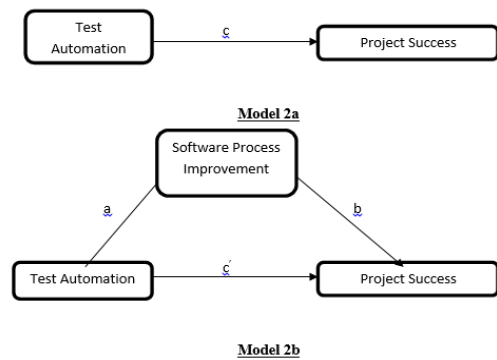
**Figure 2: CFA diagram of the model.**



**Figure 3: Multiple Regression models (1a)**



**Figure 4: Multiple Regression models (2b)**



Where, Test Automation acts as the independent variable (X), Project Success as a dependent variable (Y) and Software Process Improvement as a mediator (M).

**Table 1: Variables used in Questionnaire**

Variables	No. of Items	Scale Adopted From
Test Automation	20	(Karhu.K. &Tarpade.O., 2009)
Organizational Quality Culture	10	(Gregory.M. &Schein.K., 2004)
Software Process Improvement	09	(Black & Porter,1996)
Project Success	10	(Jurison. J. & Standish. G. ,1999)

**Table 2: Reliability Analysis**

Construct	Code	No. Of Items	Cronbach's Alpha	Composite Value of Cronbach's Alpha
Test Automation	Test Automation	5	0.754	
Project Success	Project Success	3	0.729	
Software Process Improvement	Software Process Improvement	3	0.718	0.859
Organizational Quality Culture.	Organizational Quality Culture.	4	0.754	

**Table 3: Confirmatory Factor Analysis**

			Estimate	P
Proj6	<	Projectsucc	1.097	***
SP7	<	Softwareprocessimprov	.772	***
SP1	<	Softwareprocessimprov	1.296	***
OQC1	<	Orgculturequality	1.261	***
OQC3	<	Orgculturequality	.793	***
OQC5	<-	Orgculturequality	.937	***
OQC7	<-	Orgculturequality	.826	***
Proj7	<-	Projectsucc	1.270	***
AutPP2	<-	Automationtest	1.289	***
AutAR1	<-	Automationtest	.898	***
AutAR2	<-	Automationtest	.776	***
AutEnv1	<-	Automationtest	.671	***
SP9	<-	Softwareprocessimprov	.685	***
AutVer2	<-	Automationtest	.654	***
Proj8	<-	Projectsucc	.912	***

**Table 4: Correlation Analysis**

		Project Success	Test Automation	Software Process Improvement	Organizational Quality Culture
Project Success	Pearson Correlation	1			
	Sig. (2-tailed)	-			
	N	201			
Test Automation	Pearson Correlation	.404**	1		
	Sig. (2-tailed)	.000	-		
	N	201	201		
Software Process Improvement	Pearson Correlation	.455**	.398**	1	
	Sig. (2-tailed)	.000	.000	-	
	N	201	201	201	
Organizational Quality Culture	Pearson Correlation	.500**	.536**	.449**	1
	Sig. (2-tailed)	.000	.000	.000	-
	N	201	201	201	201

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 5: Multiple Regression Model (1a)**

R Square	Adjusted R Square	F	df1	df2	P
.2760	.2687	37.7348	2.0000	198.0000	.000

**Table 6: Multiple Regression Model (2b)**

Link	Coefficients	Std. Error	t	Sig.
c (YX)	0.4690	0.0754	6.2249	0.000
a (MX)	0.4674	0.0765	6.1110	0.000
b (YM.X)	0.3457	0.0655	5.2764	0.000
c' (YX.M)	0.3074	0.0771	3.9876	0.001

Where, X = Independent variable, Y= Dependent Variable, M= Mediator

**Table 7: Summary of Significance of Mediating Relations as per Multiple Regression Analysis.**

Relations	Significance Level
Organizational Quality Culture – Test Automation – Project Success	Significant
Test Automation – Software Process Improvement – Project Success	Significant

**Table 8: Significance of Mediating Relations in the Study.**

Relations	Significance Level
Test Automation—project success	Positively Significant
Test Automation—software process improvements	Positively Significant
Software process improvements—project success	Positively Significant
Test Automation—Organizational quality culture	Positively Significant
Organizational quality culture —project success	Positively Significant

# EMPIRICAL EVIDENCE ON THE FACTORS AFFECTING CAREER PLATEAU (IN REFERENCE TO IT & ITES INDUSTRY)

**Ritu Gandhi Arora\* Savita\*\***

*One of the most painful experiences in one's career is when an employee felt that he has stuck in their job with no upward promotion. Employees', those who stay in the organization for longer period experience career plateau situation. Career Plateau is defined as a stage where one perceives a very little chance of future promotion and when one does not feel challenged, due to lack of new job roles and responsibilities. It creates a difficult situation for the organization and if this situation is not solved within proper time duration than it becomes a gigantic problem, so it is very important that management should plan some good strategies and implement them well to avoid this situation. In this paper, the viewpoint of IT and ITeS employees on factors responsible for the career plateau has been discussed. A comprehensive literature review on the career plateau was done to finalize the variables of assessing career plateau level and their further inclusion in a structured questionnaire. This questionnaire was used to acquire data from the sample IT/ITeS companies of the NCR region. The factors were identified by conducting an Exploratory Factor Analysis (EFA) using SPSS 24.0 version. Through EFA four factors were extracted namely Job Expectations, Company Structure and Career Growth, Task Flexibility & Decision Making and Job Challenges. The research output of this study is of constructive use to the stakeholders of companies like HR department and policymakers of the organizations.*

**Keywords:** Career, Career plateau, Content plateau, Hierarchy plateau, Life plateau.

Various organizations and changes in society have altered employees' career expectations. Downsizing and organization restructuring are common in the business world. Recent data on manpower attrition clearly shows that thousands of employees are being laid off and many of them are from management levels. Resultants there are very fewer opportunities for promotion and career growth for employees are available within an organization (Chao, 1990). Flat organizational structures also mean there is a less vertical movement in the system and employees are bound to remain in their current working positions for the longer period of time. Ference et al. (1977) were among the earlier researchers who worked on the term career plateau and defined it as the stage where the employee's chances of getting an additional hierarchical promotion are very low. Employees' who experience career plateau lose their morale when they continue their job for many years in the same organization. Career plateau, therefore, is often linked with negative work outcomes such as lack of career growth, job satisfaction and an increase in the level of turnover intentions. Given the scope of the trend and its results, plateauing has become an important issue to be

resolved and studied well in time by the researcher and HR department both.

India is the largest funding offering country for the software industry, account for almost 67% of the US\$ 124-130 billion market and employed over 10 million workforces. Even after providing various facilities to employees' employed in IT and ITeS, they are feeling stagnated in their careers resultant in low satisfaction towards the job.

The organization set up of hierarchy offers different position from junior to senior level. Less availability of promotion and no growth in career lead to the occurrence of plateau situation. It has been found from further studies that in higher job role there are low chances of promotion due to the availability of few positions in the hierarchy even employee is capable enough to take up new challenges effectively. In such cases when employee starts feeling blocked, it becomes the HR department's

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responsibility to give opportunities to the employees to raise their performance and not influence by career plateau situation.

## I. Review of Literature

Career plateau is a stage when employees' feel stagnant in a job that leads to low performance, job dissatisfaction, stress, frustration and finally quitting the job. The sources of career plateaus may be organizational (e.g., lack of promotional opportunities in the entity) and personal (e.g., lack of skills due to a technologically changing environment). Career plateau literature describes four career states for employees as i) Learners or Comers: Employees' who are performing below acceptable standards, but have the potential for future advancement, (ii) Stars: Outstanding employees' with a high potential for advancement, (iii) Solid Citizens: Solid citizens do satisfactory work but have low opportunity for advancement., and (iv) Deadwood: Deadwood personnel are not satisfactory performers and have very little potential for advancement (Duffy 2000; Ference et al., 1977). There is some disagreement about the effects of plateauing on an employee and his/her employing organization. For instance, Ference and his colleagues (Ference et al., 1977) suggest that there is nothing inherently wrong with being plateaued. In fact, Bardwick (1986) and Feldman and Weitz (1988) argued that individuals may even benefit from being temporarily plateaued because they may be able to focus on individual growth, link up with professional and skill developmental plans, have time to reflect on their achievements and plan for the next peak period in their future pursuit, masterwork skills and gather psychic energy in preparation of another transition period. Some researchers believe that the performance of plateaued employees' often holds the key to success for many organizations (Cron and Slocum, 1986; Stout Downloaded by Management et al., 1988). For instance, solid citizens are effective workers whose performances ensure the stability of the organization (Ference et al., 1977). In fact, most plateaued employees maintain their level of productivity, do not seem uninterested and have high satisfaction with their jobs. There is a little indication to suggest that plateaued employees are less satisfied or motivated than their non-plateaued colleagues (Evans and Gilbert, 1984).

Levinson (1978), in his study, focused on the middle adulthood and mid-life transition. The mid-life transition is a time that matches the views of hierarchical and content plateauing. According to Levinson, the mid-life transition is a period in which employee turnout as a

mentor and maintain legacy in the form of family, work, or other subjectively valued contributions. Stoner et al. (1980) show change between successful and unsuccessful plateaus. They bring two foundations of career plateauing that are organizational and personal. Viega (1981), the study is based on 1,773 managers, in manufacturing companies. The measurement of the plateau is between the age group of (40 years) and position tenure (7 years). The deadwood group had less career displeasure than the contrast group of non-plateaued managers. The deadwood and solid citizen individuals show minimum career progression as the comparison to non-plateaued individuals. The solid citizens are satisfactory to their performance but have the slight probability of future progression. The deadwood is individuals that have little likelihood of the future progression. Their performance has dropped to the lower satisfaction level. The type of plateau investigated is the hierarchical plateau. The outcome of the variable investigated show career histories, career path potential, career attitudes. In continuation of this study, Near, J.P. (1983) studied the occurrence of major changes among plateaued managers and non-plateaued counterparts. Results define that the employees' influenced by career plateau possess low motivation and increase absenteeism ratio. The plateaued employees not maintain good talking term with supervisors. Plateaued employees' suffered more with the poor health such employees' have negative effects on their relationships and in job performance. Bardwick (1986), proposed a new concept known as a professional plateau where employers have increasingly abandoned their role in managing their employee's career in expectation of changes in work environment. The Professional plateau is concerned not only with the contents of the job, but also enables employees to learn new skills to have employability. Feldman and Weitz (1988), focused on individual skills and organizational climate as a factor of identifying influence on career plateau. They recommend that a career plateau is a probability of not getting further assignments of increased responsibility and challenge, thus joining structural and job content promotions into one concept. Irrespective of the specific definition, feelings of reaching a plateau stage have been related to positive and negative organizational outcomes.

Burke (1989), the study was focused on work and health of plateaued employees. Plateaued officers stated negative work setting, stress, less job satisfaction, greater work unfriendliness as reasons for work plateau. On the other hand, burnout, negative feeling, psychosomatic symptoms and self-reported lifestyle behaviours and physical health were the health symptoms of plateaued

employees. Research also stated that plateaued officers, who had been working for more than 15 years in an industry, were less satisfied with their job as a comparison to their non-plateaued colleagues. Bardwick (1988) considers that the main reason of career plateau or structural plateau is enlarged struggle for higher level positions in the face of slower economic growth. Allen, Russell et al. (1999), found that lack of career investigation is highly related to a hierarchical plateau than to a job content plateau. Findings propose that someone undergoing a hierarchical plateau possibly discover another career options as a managing strategy than someone undergoing a job content plateau. Both types of plateauing remained associated with the management such as career development, the job association, and standard of education. Palmero et al. (2001), studied shows the effect of career plateau on service status of the employees'. The study is placed on full-time workers; part-time workers may also perceive this phenomenon. The type of plateau investigated is a hierarchical plateau. The study is conducted on the data of 155 part-time employees'. The measurement of the plateau is subjective measures and position tenure between 5 to 10 years. The outcome of the variable investigated is satisfaction in the job. Nachbagauer and Reidl (2002), they examined are hierarchical, the job content and objective plateau that were unrelated to the job performance. On enlightenment for this result might be that the performance measures used were an amalgamation of objective and subjective measures such as counting of work hours per week, self-evaluated performance and new variations in performance level. Foster, B.P. (2007), studied the consequence of mentoring on employees' stability and desire to quit the job. The subject responses were analyzed by compound scales for measuring mentoring significance on career plateau and employees' intentions to quit the job including the different feature such as positive job attitude and job satisfaction rate. The study shows the significance of motivation and guidance by the supervisor and reporting manager and how it works in reducing the occurrence of career plateau situation. The result shows that promotion in a mentoring environment can decrease career plateau and increase more achievement and lessen turnover intentions. Galhena, B. L. (2009), examined the consequence of subjective and objective plateau on the work linked attitudes of satisfaction, commitment towards job, stress, and willingness to quit the job. Hurst, et al. (2012), found that job content plateau is negatively associated with organizational citizenship behavior, whereas hierarchical plateau is inappropriate to it. Beheshtifar M., Modaber H., (2013), examined the connection between

occupational stress and career plateau and showed that there is an important and direct connection between occupational stress and all career plateau variables. Godshalk and Fender (2015), shows that the employees' who have plateaued due to internal (or voluntary) reasons display no negative work attitudes, while those who have plateaued due to external reasons stated negative job satisfaction and job involvement. After going through the literature, it can be determined that the career plateau is a complex multifaceted problem organization is facing. Various conclusions can also be drawn like there are different types of plateaus and each having a unique feature. The plateau is a serious concern for the organizations as far as employees' are concerned. Organisations always seek to achieve economies of scale in every sense. In this sense, it becomes imperative to have full utilization of its human resources. Plateaued employees are the liability to an organization as they are not capable of working at their full potential. It is associated with negative individual and organizational consequences in most of the cases (Allen et al. 2000). Also, the literature clearly states that organizations have already adopted so many practices to curb this problem but somehow this problem still persists. In light of the above discussion, the present study has been planned to explore the various factors affecting the career plateau in the software industry. The present study will be limited to the perspectives of middle management employees' only. On the basis of the reviewed literature and gaps in the existing the following research objectives were drawn:

1. To examine the different variables influencing career plateau among IT/ITeS employees;
2. To identify the factors responsible (On the basis of variables) for career plateau.

## II. Research Design & Methods

The present study is based upon both secondary and primary data. The sample unit of the study consists of responses from the employees' working in IT & ITeS Industry in Delhi/NCR. To collect primary data a structured questionnaire was prepared after a thorough study of available literature. Related literature studies formed the basis for selection of variables and designing of the questionnaire. The secondary information was collected from the journals, magazines, annual reports, research surveys, records, reports and official websites of sample companies. The data was collected using the random sampling method. The study has been conducted in the form of a survey using self-administered questionnaire and interview method that includes the information on different aspects of the research problem.

The questionnaire was divided into two parts: First, the Demographic profile of the respondents like gender, education, age, income, designation, experience etc. The second part aims to find out the extent to which each variable (item) impacts career plateau stage, on a five-point Likert Scale. The present study makes extensive use of primary data collected from 500 employees working in IT & ITeS organizations. The questionnaire contained bi-directional questions. A total of 37 statements were taken for the responses. The codes given to statements from S1 to S37 areas 1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree and 5-Strongly Disagree. The data obtained was thus analyzed using SPSS 24.0. After analysis four factors were extracted those have an influence on employees' facing stagnancy in job that leads to the beginning of career plateau. These factors can be further used by the HR department in making employee policies and strategies.

#### **Reliability Tests**

With an objective to determine the suitability of the data for factor analysis, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and the Bartlett's Test of Sphericity were applied. The results from these tests are mentioned in Table 1. The high value of KMO 0.867 (>0.7) indicates that factor analysis is quite useful for the data being used in this study. For data, the value of KMO falls into the range of great. Similarly, the significant value for Bartlett's Test of Sphericity is 0.001 which indicates that there exist significance relationships among variables. The value .666 obtained on the scale of Cronbach Alpha, is also considered good.

### **III. Analysis, Discussion & Findings**

#### **Demographic Analysis**

The respondents were between 25-55 years of age group. From the overall sample, the respondents were found to be in the ratio of 64:36 on gender basis. The majority of the respondents were male, 47 percent of the entire data were postgraduates and 41.4 percent were graduates whereas only 7.6 percent were holding diplomas. Table 2 narrates demographic analysis of the respondents. Around 30% of the respondents were working as Team Leader followed by Managers (26%) having experience of more than three years in the current position. 39% of the sample population has work experience of between 5 to 10 years out of which 47% employees have experience of working in the same organization.

#### **Descriptive Analysis:**

The descriptive analysis of 37 items of the questionnaire is shown in Table 3. The variables with the loading of

+/\_0.4 were included for the purpose of data analysis. For extraction of factors, Principal Component Method was used. Table 3 narrate the total variance (Career Plateau). The factors so obtained using factor analysis were four and named according to the variables included. These factors with their names and respective factor loadings are shown in the Table 4. Each factor has 3 or more items indicate that factor can be labeled (Tabachnick & Fidell, 2007).

The analysis provided four factors which impact employee career plateau stage. These factors can be used by the management while designing policies and strategies, to keep employees at ease. A factor loading represents the correlation between the factors and the variables. A coefficient of a large absolute value indicates that the factor and variable are closely related (Malhotra & Dash, 2012, p. 596). Factor loadings can vary from +1.0 to -1.0. On each factor, 'like signs' of factor loadings mean that the variables are positively related and 'opposite signs' mean that the variables are negatively related. All factor loadings equal and above 0.4 have been considered as significant for the purpose of this analysis. Five variables were having factor loadings less than 0.400, so they were not considered for formulating factors.

#### **Factor 1: Employee Job Satisfaction & Expectation**

Job Satisfaction & Expectation plays a significant role in employee stability in an organization. This comes out to be an important factor and accounts for the maximum percentage of variations equal to 6.414. This factor exhibit Cronbach's alpha value of 0.859 that means high internal consistency. The Eigenvalue more than 1 also highlights that it is an important factor, which employees' look for, in terms of factor affecting the career plateau. This factor consists of 9 variables related to the employee satisfaction and expectation in the job hence named as employee job satisfaction and expectation. As jobs in the IT industry are highly stressful and graveyard shifts make the situation worst. Employees suffer from exhaustion and burnout. Results state that timely promotion, career progress, learning experiences and engaging job profile keep the employee away from the career plateau. Work-life integration completely relies on the employee participation in the formulation of organizational policies and systems. To reduce the career plateau problem at the organizational level employer and the employee must work together. This requires support from all levels of the organization, analysis of the current strategies and implementation of employee development policies. Appropriate promotion policies and employee engagement may help in slow down the trend of career plateau in IT/ITeS industry.

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### **Factor 2: Company Structure & Career Growth**

This is a factor which accounts for the percentage of variations equal to 4.365 and exhibits Cronbach's alpha value of 0.799 that means high internal consistency. This Factor consists of 13 variables related to company structure and employee career growth policies. This factor emphasized on career growth opportunities and impact of company structure on employee promotion. Factor exhibits that employees not only believe in their career growth but they are also considerate about work-family integration and financial benefits along with the promotion. It becomes an edge for company's management to grow and provide a congenial environment for growth respectively.

### **Factor 3: Task Flexibility and Decision Making**

This factor accounts for the percentage of variations equal to 1.968. This factor exhibit Cronbach's alpha value of 0.721 that means high internal consistency. The Eigenvalue more than 1 also highlights that it is an important factor. The third factor is related to Task Flexibility and decision making. Five statements have been uploaded to this factor which is highly correlated. The statements are related to task performance flexibility and decision making which include freedom in taking decisions related to assigned job responsibilities. Employees' have been provided with authority to complete the jobs successfully such as outdoor games, flexible shift, food vouchers, work from home etc. Because of 24/7 work, culture employees are allowed to do work from home in case of emergencies or other family commitments. They are expected to complete the task in a given period of time which gives an employee a sense of commitment and freedom.

### **Factor 4: Job Challenges**

This factor accounts for the percentage of variations equal to 1.645. This factor also exhibits Cronbach's alpha value of 0.756 that means high internal consistency. The factor is related to Job Challenges. It consists of 5 statements related to Nature of challenges. In IT & ITeS industry the working culture includes a lot of challenges with reference to the technologies development & support services offering to the clients as most of the IT products and services have been outsourced to the International clients. English being the primary language in the US, UK, and Australia, it is difficult for our youth to communicate with their counterparts in their ascent. So it has become important for an organization to provide proper language training to its employees along with training in technology up gradation. Through this study, the researcher tried to find out the factors affecting employee career plateau in the IT/ITeS industry. The

results so obtained clearly depicts four factors namely- Expectations from Job, Nature of Job (Challenging or Monotonous), Career Growth and Opportunities, Task Independence and Decision Making, which impacts employees' journey in an organization and because of these factors the only employee feels that his growth path has been stagnated to a certain extent, reason could be personal or organizational. Result also shows the positive loadings of all the variables on factors and good internal consistency of the statements within the factors. This study is based on data collected using questionnaire and interview method. Though due care was taken while communicating with sample population regarding the purpose of the study. It was made clear to them that data has been gathered purely for academic purpose. Still, the chances of personal bias could not be ignored. Another limitation is the selection of variables for the study. There could be many other possible/relevant factors in the context of career plateau in IT-ITeS companies. The study dealt with the various dimensions related to employees, organization policies, systems, and top management for which respondents may have felt uncomfortable while giving responses.

## **IV. Conclusion**

With an ever-increasing number of employees' feeling stagnated in the initial stage of their career, it has become essential for the organizations to keep their employees' motivated, so that they feel satisfied and happy on the job. It has become a herculean task for the management to maintain the balance between various factors which keeps their morale high. Four factors extracted after Factor analysis can be used by the organizations to make employee friendly policies and procedures. The findings of this research support the results derived from previous studies that plateaued employee is always an expense to an organization and negatively impact the perceived organization's market reputation (Dahl & Sminou, 2011). The reason for stereotyped management may include low employee motivation, growth, satisfaction, and happiness. Chances of career growth and development are important factors which may reduce the chances of an employee feeling stagnated. The study is focused on the employees working in IT/ITeS industry in Delhi and NCR. Further research could be carried out on other organizations like FMCG, Banks and educational institutions as well. Even cross comparison could also be done.

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Test	Value
Kaiser- Meyer – Olkin Measure of Sampling Adequacy	0.847
Barlett's Test of Sphericity	5439.692
Cronbach's Alpha of the scale	666.000
Sig	0.000

Source: Primary Data

Demographic Profile	Categories	No. of Respondents	% age
Gender	Male	320	64.0
	Female	180	36.0
Age (in years)	Less than 25 years	50	10.0
	Above 25 to Below 35 years	258	51.6
	Above 35- Below 45 years	111	22.2
	Above 45- Below 55	56	11.2
	Above 55 years	25	5.0
Qualification	Diploma	38	7.6
	Graduation	207	41.4
	Post-Graduation	235	47.0
	Any Other	20	4.0
Designation	Team Member	123	24.6
	Executive	51	10.2
	Team Leader	150	30
	Manager	130	26
Total Experience	Any Other	46	9.2
	Less than the 1 year	30	6
	1 year to less than 5 years	114	22.8
	5 year to less than 10 years	189	37.8
	10 year to less than 15 years	123	24.6
Experience in current company	Above 15 years	44	8.8
	Less than 1 year	81	16.2
	1 year to less than 5 years	235	47
	5 year to less than 10 years	142	28.4
	10 year to less than 15 years	33	6.6
Experience on current position	Above 15 years	9	1.8
	1 Year	91	18.2
	2 year	133	26.6
	3 year	116	23.2
	Above 3 years	160	32

Source: Primary Data.

30	0.439	1.186	93.621		
31	0.428	1.156	94.777		
32	0.393	1.063	95.839		
33	0.382	1.032	96.871		
34	0.333	0.899	97.771		
35	0.309	0.836	98.607		
36	0.293	0.791	99.398		
37	0.223	0.602	100		

Source: Extraction Method: Principal Component Analysis.

Item No. /Factor Labels	Variables/Statements (%age of Variance)	Factor Loadings
<b>F1</b>	<b>Job Satisfaction and Expectation (Cronbach Alpha 0.859) (6.414%)</b>	
<b>V3</b>	Promotion in the Company.	0.546
<b>V9</b>	Utilization of Competencies.	0.611
<b>V12</b>	Skill& Knowledge Enhancement	0.519
<b>V13</b>	Satisfied With Career Growth	0.611
<b>V14</b>	Career Progress Matching with Career Goals.	0.758
<b>V15</b>	Right Promotion due to Organization Grading System.	0.786
<b>V18</b>	Authority with responsibility.	0.453
<b>V33</b>	Job Profile Is More Meaningful And Engaging.	0.671
<b>V37</b>	Learning & Growth In Current Company Is Good.	0.684
<b>F2</b>	<b>Company Structure &amp; Career Growth (Cronbach Alpha 0.799) (4.365%)</b>	
<b>V6</b>	Less Upward Mobility Because There Are Very Few Positions	0.523
<b>V11</b>	Quit Job if will get an offer.	0.497
<b>V16</b>	Current Job Focuses On Growth Irrespective Of Stability.	0.473
<b>V22</b>	No Benefit Of Taking Promotion If No Increment In The Salary.	0.664
<b>V24</b>	Personal Commitments	0.538
<b>V27</b>	Conventionally Prepared My Own Career Plan.	0.584
<b>V28</b>	Re-Evaluate My Career Plan.	0.528
<b>V29</b>	Quit Job as Long Period Spent in the Same Organization.	0.539
<b>V30</b>	No Skill Enhancement.	0.543
<b>V31</b>	Looking For Job Change For Promotion And Salary Increment.	0.557
<b>V32</b>	Frustration Because of High Work Pressure.	0.421
<b>V35</b>	No Work Life Balance	0.554
<b>V36</b>	High Learning & Growth	0.510
<b>F3</b>	<b>Task Flexibility and Decision Making (Cronbach Alpha 0.721) (1.968%)</b>	
<b>V19</b>	Well Aware of Responsibilities At Work.	0.716
<b>V20</b>	Cordial Relations With My Colleagues And Seniors.	0.731
<b>V21</b>	Freedom To Complete The Task.	0.582
<b>V25</b>	Freedom In Decision Making.	0.541
<b>V26</b>	Balance Between Personal And Professional Life.	0.522
<b>F4</b>	<b>Job Challenges (Cronbach Alpha 0.756) (1.645%)</b>	
<b>V1</b>	Challenging Job, So The Process Of Learning Is Continuous.	0.775
<b>V2</b>	Future Growth Opportunities Are Many.	0.681
<b>V4</b>	Challenging KRAs	0.705
<b>V5</b>	Higher Job Responsibilities	0.621
<b>V10</b>	Promotion Opportunities	0.409

Source: Extraction Method: Principal Component Analysis

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	6.414	17.335	17.335	4.593	12.415
2	4.365	11.798	29.133	3.741	10.11	22.525
3	1.968	5.32	34.452	2.928	7.914	30.438
4	1.645	4.446	38.899	2.732	7.383	37.822
5	1.439	3.888	42.787	1.837	4.965	42.787
6	1.329	3.593	46.38			
7	1.169	3.159	49.538			
8	1.115	3.013	52.551			
9	1.042	2.816	55.367			
10	0.972	2.627	57.994			
11	0.932	2.52	60.514			
12	0.916	2.476	62.99			
13	0.858	2.319	65.309			
14	0.825	2.231	67.54			
15	0.785	2.12	69.66			
16	0.758	2.049	71.71			
17	0.751	2.029	73.738			
18	0.729	1.971	75.709			
19	0.682	1.844	77.553			
20	0.678	1.834	79.386			
21	0.646	1.747	81.133			
22	0.6	1.621	82.755			
23	0.568	1.536	84.291			
24	0.564	1.526	85.816			
25	0.531	1.434	87.25			
26	0.511	1.38	88.63			
27	0.484	1.309	89.939			
28	0.467	1.262	91.201			
29	0.456	1.233	92.435			

# WHY THE POWER OF THE E COMMERCE IS DRIVING THE FUTURE OF BUSINESS? A CASE ON MOTIVATIONS AND DETERRENTS OF SHIKSHA.COM

P. Theerthaana\* A. K. Sheik Manzoor\*\*

*With the surge of internet and more improving technological advancements, students are more likely to rely on online education classifieds which connects the education seekers with the education providers. The main purpose of this study is to determine the influential factors for choosing Shiksha.com and also to determine the factor motivates people to refer Shiksha.com to others. The study also sought to determine the impact of demographic profile (age and gender) of the respondents on frequency of use of Shiksha.com. A self-administered questionnaire was administered to a sample of 1250 customers of shiksha.com and Multiple Linear Regression and Percentage Analysis was employed using SPSS to determine the motivators that influence the individuals in choosing shiksha.com. The study employs Multiple Linear Regression which indicated that Satisfaction towards counseling expert and Satisfaction towards Educational Information are antecedents of overall customer satisfaction ( $R^2 = 0.987$ ) and this also influences the intention to refer shiksha.com to others ( $R^2 = 0.699$ ). This study signals the management team of online education classifieds business to devise online based promotions to acquire the market by whipping the competitors thereby gaining a competitive edge among the competitors.*

**Keywords:** Online education portals, Service effectiveness, Customer Satisfaction, Barriers to choose online portals, E-Commerce Adoption, IT Innovation.

With the era of internet and technological gadgets today's customer is seen spending more time in the virtual world rather than in real world. Internet advertising is the process of building and maintaining customer relationships through online activities to facilitate the exchange of ideas, products, and services that satisfy the goals of both buyers and sellers. Advertising through internet, termed as online or internet marketing, is gaining momentum in recent years.

Despite the slowing penetration of regular Internet users, the number of consumer goods and services is still growing. As the Internet establishes its position as a mainstream marketing channel, consumer criticism regarding Internet marketing strategies has increased as well. Critics worry about information privacy, including issues related to the acquisition and dissemination of consumer data.

The present study is conceived in order to throw more light on the factors that measures the behavior of customers towards the online promotion of Shiksha, an online educational portal of Info edge. The study is conducted about how effective the online promotions strategies utilized by Shiksha decided the consumer behavior. The newly launched web portals percolated to the fact that

users want their sites to be good looking and with relevant content which matches their needs. The empirical evidence also suggests that people always remember those advertisements which are humorous and arouse their curiosity without leaving them doubtful and confused about the subject of the advertisement. The specific objectives were:

- To determine the relationship between intention to refer Shiksha.com and satisfaction of service offered by Shiksha.com
- To determine the relationship between demographic profile (age and gender) of the respondents and their opinion towards the important influential factor for choosing Shiksha.com.
- To determine the relationship between demographic profile (age and gender) of the respondents and frequency of use of Shiksha.com.

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- To determine the antecedents of Overall Satisfaction of Shiksha.com.
- To analyze the main barriers that keep the customers away from choosing Shiksha.com and give ranking based on their order of importance.

## I. Review of Literature

There are many researches and studies about the comparison between traditional marketing and modern marketing and also advantages and disadvantages of E-marketing, which shows the performance and efficiencies of it. Chaston and Mangles (2003), examined the influence of marketing style on the utilization of the Internet among small UK manufacturing firms. They employed a quantitative methodology to determine whether, in business-to-business markets, the Internet is a technology that will be managed differently by firms that have adopted a relationship versus a transactional marketing orientation. The research was conducted depending on a survey strategy through mailed questionnaires on a sample of 298 UK small firms (manufacturers of mechanical or electronic components / their primary area of activity is business to-business marketing / have between 10-50 employees / not branch plants of British or multinational organizations). Insufficient evidence was found to support the view that relationship-orientated firms, when compared with transaction ally-orientated competitors, exhibit differing perceptions about the nature of online markets.

According to Hoge (1993), Electronic marketing (EM) is the transfer of goods or services from seller to buyer that involves one or more electronic methods or media. Hoge's (1993) idea of E-marketing is simple but it does not touch the important aspect of customer relationship. Strauss and Ansary (2006) defined E-marketing in their latest book as the use of information technology in the process of creating, communicating, and delivering value to customers, and for managing customer relationships in ways that benefit the organization and its stake holders. This explanation tells that e-marketing is not only about selling products or providing services through IT but it is lot more than that. It is not just traditional marketing using the information technology tools but it's a strategic model to achieve brand value and provide customer satisfaction.

Dave Chaffey (2002) defines E-marketing as "Applying Digital technologies which form online channels (Web, e-mail, databases, plus mobile/wireless & digital TV) to contribute to marketing activities aimed at achieving profitable acquisition and retention of customers (within a multi-channel buying process and customer lifecycle)

through improving our customer knowledge (of their profiles, behaviour, value and loyalty drivers), then delivering integrated targeted communications and online services that match their individual needs.

A study also postulates that if the users of the app are in the right demographic profile or represent a good match between a producer's product or service and their target market, this path can lead to higher profitability as well as the funding necessary to maintain and expand the business (Jamaluddin Ibrahim, Rafidah Chee Ros, Nurul Faatihah Sulaiman, Roszaini Che Nordin, & Li Ze Yuan, 2014). From the standpoint of web-advertising research, on-line consumers are goal-oriented and perceive ads to be even more intrusive than when they are viewed in other media (Li et al. 2002). All industrial types started to adopt business-to-business (B2B) e-commerce to gain advantages even small medium enterprises (SMEs).

These businesses' environment raises the absolute necessity to adopt IT innovation in order to attain the business strategic goals and improve their operational efficiencies. Although several cases reported positive impacts and success about B2B e-commerce implementation, some failures have taken a place worldwide. A study on the effects of e-commerce adoption on China SMEs found that it has a positive effect on the organization's performance and resulted in new business relationships, which makes new business and new marketing paradigms.

## II. Research Design & Methods

### Data Collection

This study used descriptive research method where primary data was collected using a structured questionnaire administered to a sample of 1250 respondents, selected using a non-probability sampling technique. The study was conducted in Chennai among the people who were customers or users of Shiksha.com.

The respondents were asked to answer close ended questions on a 5-point Likert-type scale - Highly Satisfied, Satisfied, Neutral, Dissatisfied, Highly Dissatisfied, Dichotomous Scale (Yes/No) and a Category Scale (Multiple terms).

The questionnaire used in this study is divided into 2 parts. In Part 1, the respondents were asked general demographic questions such as name, gender, education qualification and age. Part 2 of the questionnaire contains items measuring various dimensions which determine the factors contributing to the effectiveness of Shiksha.com.

### III. Analysis, Discussion & Findings

Table 1, depicts that 56% of respondents were male while 44% were female respondents. Majority of the respondents i.e., 46% were in the age group of 18 to 21 years indicating young sample. 55% of the respondents were 12th completed looking out best suited graduate courses and 38% were graduates looking out options for postgraduate courses.

Fig1. Indicates that 46% of the respondents came to know about shiksha.com through media, 14% through word of mouth, 18% through online marketing, and 22% of them through magazines. 18% of the respondents are fully aware of the career central tool of shiksha.com, 34% of them are aware, 42% of are neutral, 4% are not aware and 1% is not fully aware.

14% of them are fully aware of the common application form of shiksha.com, 28% are aware, 56% are neutral, 2% are not aware and none of them is not fully aware about that. And also 16% of them are fully aware of the top colleges of shiksha.com, 44% are aware about that, 36% are neutral, 2% are not aware and 2% are not fully aware. Regarding the college compare tool of shiksha.com, 18% of them are fully aware of the college compare of shiksha.com, 36% of them are aware, 42% are neutral, 4% are not aware and none them is not fully aware. With the alumni employment stats tool of shiksha.com 12% are fully aware, 38 % are aware, 46% of them are neutral about that, 2% of them are not aware and 2% are not fully aware. 14% of them are fully aware of the campus connect of shiksha.com, 32% of them are aware about that, 48% of them are neutral about that, 4% of them are not aware and rest of 1of them is not fully aware about that. 12% of them are fully aware of the college reviews of shiksha.com, 26% of them are aware about that, 52% of them are neutral about that, 8% of them are not aware and rest of 2% of them is not fully aware about that 16% of them are fully aware of the college predictors of shiksha.com, 30% of them are aware about that, 44% of them are neutral about that, 6% of them are not aware and rest of 4% of them is not fully aware about that 10 % of them are fully aware of the my shortlist of shiksha.com, 24% of them are aware about that, 58% of them are neutral about that, 4% of them are not aware and rest of 4 of them is not fully aware about that 18% of them are fully aware of the Shiksha café of shiksha.com, 28% of them are aware about that, 52% of them are neutral about that, 2% of them are not aware and none them is not fully aware about that 62% of the respondents mostly prefer of Shiksha's site and the rest 38% of the respondents prefer studyabroad.shiksha.com. 42% of the respondents frequently use shiksha.com

website, 34% of them use occasionally, 22% of them use rarely and the rest 2% of the respondents.

Research shows that 48% of the respondents said they choose shiksha.com for their excellent guidance, 24% of them said as they have vast option to select 26% of them said because of their service quality and the rest of 2% of them said other reason.

Regarding service of Shiksha.com 44% of the respondents said Shiksha.com service is much better than other companies, 16% of them said somewhat better, 38% of them said about the same, 2% of them said somewhat worse and none said much worse.

28% of respondents said they give importance for fees structure of institutions, 15% of them said they give importance for entrance exams, 27% of them said they give importance for option to colleges, 30% of them said they give importance for rank predictors.

The above table exhibits that 28% of the respondents highly satisfied with the counseling/expert guidance available at shiksha.com, 42% of them are satisfied, 24% are neutral and 4% are dissatisfied and 2% of the respondents are highly dissatisfied.

The above table exhibits that 34% of the respondents highly satisfied with the educational information provided by Shiksha.com, 44% are satisfied, 16% are neutral and 4% are dissatisfied and 2% are highly dissatisfied.

The above table exhibits that 96% of the respondents said they more likely recommend shiksha.com to others and the 4% of the respondents less likely to recommend shiksha.com.

From Fig. 11 it is clear that 24% respondents said the timeliness of shiksha.com is excellent, 52% of them said good, 20% of them said average, 2% of them said poor and the rest 2% of the respondents said very poor.

The above table exhibits that 92% of the respondents said they expect improvement in shiksha.com' services and rest of the 8% of them said no. From the above figure it indicates that 16% of them strongly agree that convenience & time saving factors affects their final decision making in selecting Shiksha service, 42% of them agree this, 38% of them neutral this, 2% of them disagree this and the rest 2% of them strongly disagree It is also seen that 14% of them strongly agree that availability of features and comparison affects their final decision making in selecting Shiksha service, 38% of them agree this, 44% of them neutral this, 2% of them disagree this

and the rest 2% of them strongly disagree. 18% of respondents of them strongly agree that availability of reviews affects their final decision making in selecting Shiksha service, 34% of them agree this, 42% of them neutral this, 4% of them disagree this and the rest 2% of them strongly disagree and also 12% of them strongly agree that advertisement affects their final decision making in selecting Shiksha service, 36% of them agree this, 46% of them neutral this, 4% of them disagree this and the rest 2% of them strongly disagree.

58% of respondents agree that convenience & time saving factors affects their final decision making in selecting Shiksha service, 58% agree that availability of features and comparison affects their final decision making in selecting Shiksha service, 52% agree that availability of reviews affects their final decision making in selecting Shiksha service, 46% agree that advertisement affects their final decision making in selecting Shiksha service.

The above table exhibits that 38% of the respondents said after receiving the Shiksha service they discuss with friends/family, 26% of them write a review about the service, 34% of them contact the expert cell for more guidance and rest of the 2% of them select others.

Majority of the respondents agree that they visit the competitor's website before making their final decision. 32% of the respondents are highly satisfied with Shiksha.com, 42% of them are satisfied, 18% of the respondents are neutral, 4% of them are dissatisfied and 4% of the respondents are highly dissatisfied.

**Association of Gender and Age with Frequency of use**  
To understand the statistical significance of association of gender and age with frequency of use of Shiksha.com Pearson Chi-Square test was conducted. Results indicate that there is a significant association between gender, age and frequency of use ( $p < 0.05$ ).

Therefore, the following hypotheses are accepted,  
**H1:** There is significant association between age of the respondents and their frequency of use of Shiksha.com

**H2:** There is significant association between gender of the respondents and their frequency of use of Shiksha.com

Antecedents of Overall Satisfaction of Shiksha.com by Multiple Regression Analysis

**H0:**  $\beta = 0$ . Satisfaction towards counseling/ expert and Satisfaction towards Educational Information are not good predictors of Overall Satisfaction of Shiksha.com.

**H1:**  $\beta \neq 0$ . Satisfaction towards counseling/ expert and Satisfaction towards Educational Information are good predictors of Overall Satisfaction of Shiksha.com.

A multiple regression test is performed to test above hypothesis. R Square value = .987,  $F = 1061.751$ , sig. = .000 indicates that Satisfaction towards counseling/ expert and Satisfaction towards Educational Information are good predictors of Overall Satisfaction of Shiksha.com (Table 8). The significantly influencing service quality factors are Educational information and counseling expertise offered by Shiksha.com.

Association between the Customer Satisfaction and Intention to refer Shiksha.com

**H0:**  $\beta = 0$ . Customer satisfaction has no significant positive impact on Intention to refer Shiksha.com.

**H1:**  $\beta \neq 0$ . Customer satisfaction has a significant positive impact on Intention to refer others.

A multiple regression test was performed to test above hypothesis. R Square value = .699, sig. = .000 indicates that dimensions of customer satisfaction significantly influences the Intention to refer others.

The argument that customer satisfaction is an antecedent and positively related to intention to refer others is supported in the findings as indicated in Table 8. Thus a unit increase in the customer satisfaction increases the intention to refer others to the extent of 69.90 percent since  $R^2$  value is 0.699.

**Rank Analysis on Barriers of Shiksha.com**  
A Rank Analysis was performed to rank the barriers in the order of their importance.

- Low trust level of online Brand  
 $(9*5) + (13*4) + (23*3) + (3*2) + (2*1) = 174$
- Not very effective  
 $(11*5) + (22*4) + (14*3) + (2*2) + (1*1) = 190$
- Response too slow  
 $(4*5) + (19*4) + (20*3) + (6*2) + (1*1) = 169$

From the rank analysis, it is found that most of the respondents gave rank I for not very effective rank II for low level of online brand and rank III for response too slow. Hence Shiksha.com should devise strategies in order to curb these barriers in their order of importance.

## IV. Conclusion

This study postulates that Shiksha.com is rendering excellent service by providing educational information

like information on fees structure, course details and other needy information and also provides counseling for students to choose their preferred institutions for studies. This is done by conducting researches for years and invented amazing, highly effective, most modern methods and tools which make the choosing colleges better, faster, easier, effective and enjoyable. It is also evident from the analysis that satisfaction towards counseling/ expert and Educational Information are the antecedents of overall Satisfaction of Shiksha.com and also contributes significantly towards it with a strong correlation of 98.7%. It is also evident from the analysis that satisfaction level of the customers is positively related to intention of the customers to refer peers and friends to the extent of 69.9%.

The important managerial implication of this study is that shiksha.com should adapt effective strategies like recruitment and training programs in order to ensure that a quality service (counseling to the students, providing educational information) is delivered to the customers thereby increasing the customer satisfaction which in turn will retain valuable customers and it will enhance their intention to refer Shiksha.com to their peers and friends.

The management of Shiksha.com is required to do R&D to improvise the effectiveness of Shiksha.com as many respondents think it as a barrier to keep them away from Shiksha.com. Though versatile nature of Social media marketing allows marketers to promote the websites Shiksha.com can concentrate on blogging and social bookmarking as compared to other forms of social media as it plays a great role in increasing rating of website.

There is an urge to improve content of weblog on company's blogging page. Also layout need to be improves a lot. Whereas other features such as ease of navigation and content on groups and forums are pretty good. Placing link on social profile is preferred by most of respondent in order to increase traffic. This gives a good indication for application. A good percentage of respondents look for potential institutions on social networking sites and also apply and thereby grabbing opportunities from Shiksha.com. So the applications can spread well and serve well the purpose of person looking job.

There is no doubt that mobile messaging apps have provided a new medium which allows a viral idea/message to spread instantly to millions of consumers at lowest cost. Therefore, it is advised that marketers to cleverly harness the amazing power of digital marketing to reach the mobile-bound audiences and enhance the site hit rate. However, the challenge is to create an exciting idea and

get the users to engage and propagate the idea. This definitely calls for more research in the area.

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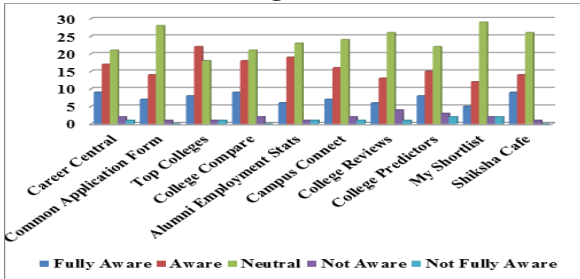
**Table 1: Exhibits the Demographic Profile of the Respondents.**

S.No.	Demographic Variables		Number of Respondents	Percentage
1	<b>Age</b>			
	1	Less than 18 Years	100	8%
	2	18-21 Years	575	46%
	3	21-25 Years	275	22%
	4	Above 25 Years	300	24%
2	<b>Gender</b>			
	1	Male	700	56%
	2	Female	550	44%
3	<b>Education</b>			
	1	10th Standard	50	4%
	2	12th Standard	688	55%
	3	Graduate	475	38%
	4	Postgraduate	38	3%

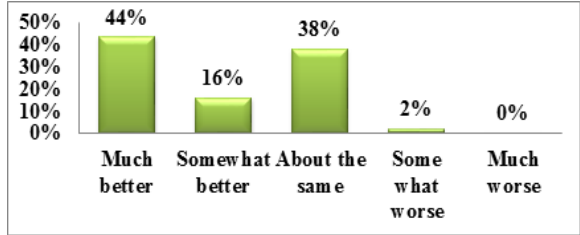
**Table 2**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate				
1	.987a	0.974	0.974	0.8898				
<b>Coefficients</b>								
Model		Unstandardized Coefficients		Standardized Coefficients		T	Sig.	Null Hypothesis
		B	Std. Error	Beta				
1	Regression	42.03	5		0.662	0.508		Reject
	Residual	1.1	139	0.021	2.93	0.004		Reject
	Total	43.13	144	0	12.67	0		Reject
a. Predictors: (Constant), Satisfaction towards Counselling and Satisfaction towards Educational Information.								
b. Dependent Variable: Overall Satisfaction.								

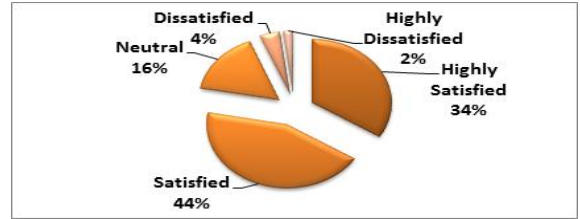
**Figure 1**



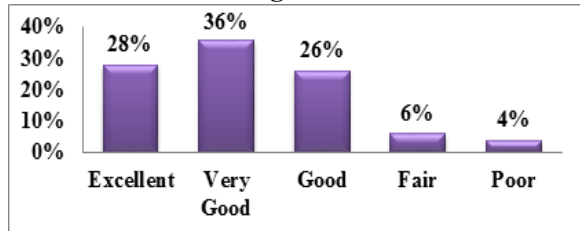
**Figure 2**



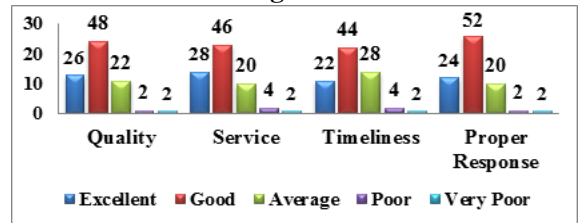
**Figure 3**



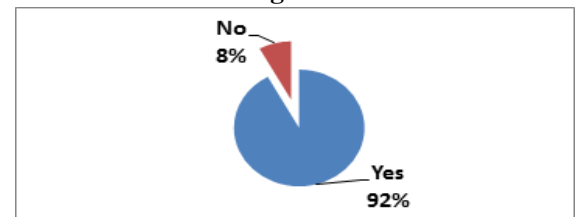
**Figure 4**



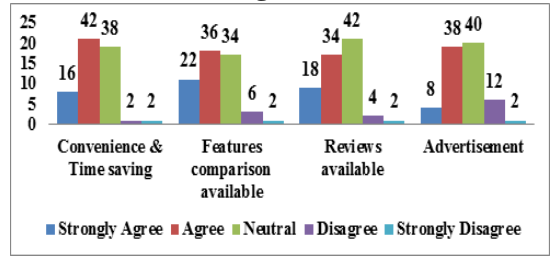
**Figure 5**



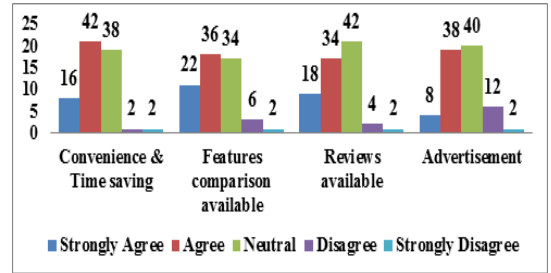
**Figure 6**



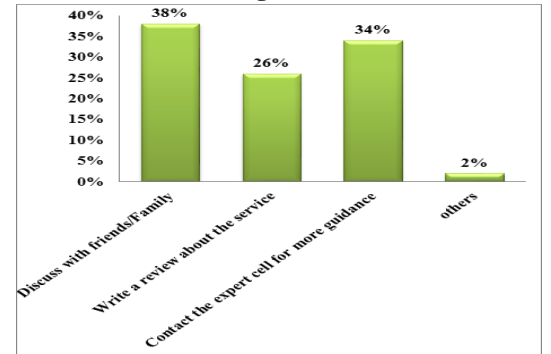
**Figure 7**



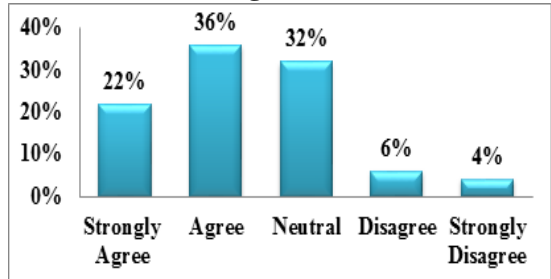
**Figure 8**



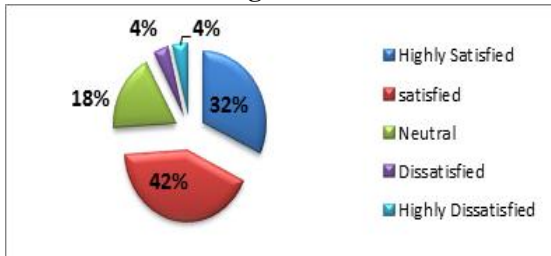
**Figure 9**



**Figure 10**



**Figure 11**



# INNOVATION CULTURE IN A FAMILY BUSINESS: THE CASE OF SUZUKI MOTOR CORPORATION

Jose Lam\* Hidekazu Sone\*\* Jacqueline Walsh\*\*\*

*Innovation provides a competitive advantage to businesses. This paper uses case research methodology to highlight the role of family in business strategy, innovation, and internationalization. The case study examines the Suzuki Motor Corporation, headquartered in Hamamatsu, Japan. Over a period of 109 years, five generations of the Suzuki family have led the company. The founder Michio Suzuki was instrumental in creating and embedding an innovation culture into the organization. Subsequent generations of the family have continued to grow the business, through product innovation and internationalization strategy, into a global company.*

**Keywords:** Innovation, Family Business, Regional Culture, Internationalization.

Family-owned firms are the most prevalent type of businesses around the world. However, the field of family business research is still an emerging one. There is a strong consensus amongst researchers that the family business is characterized by a dual identity consisting of the family system – which tends to be ruled by social norms and emotions, and the business system – which is ruled by economic norms and objectivity. More research is needed to gain a better understanding of the family business. For example, there are still gaps in the literature on the roles of family in business strategy, innovation, and internationalization.

This study uses a longitudinal case research methodology to illustrate critical events in the Suzuki Motors Corporation over a period of 109 years, from the founder to the current fifth generation leader.

## **Innovation culture in organizations**

There are differences between family and non-family firms. Researchers have noted that family firms have a vision that may be passed across generations; but also have characteristics that give them advantages over non-family firms (Habbershon and Williams, 1999; Chua, Chrisman, and Sharma, 1999). Differences in organizational culture between family firms and non-family firms have also been noted (Denison, Leif, and Ward, 2004).

Dyer (1986) suggested that the values of the founder might be transferred from one generation to the next. Recent findings suggest that family firms tend to be more innovative (Duran, Kammerlander, van Essen, and Zellweger, 2016; Kammerlander and van Essen, 2017; Padilla-Melendez, Dieguez-Soto, and Garrido-Moreno,

2015, Astrachan, 2010). This advantage may be attributed to innovation as a family value embedded within the organizational culture of the firm. This results in the family firm being more efficient in the use of innovative processes such as greater innovative output with less R&D funding input (Duran, Kammerlander, van Essen, and Zellweger, 2016). Moreover, family firms may be more responsive to market and customer orientation. Newman, Prajogo, and Atherton (2016) found a relationship between family firms and customer orientation on the use of exploratory innovation to scan the market for opportunities.

Kammerlander and van Essen (2017) also noted that an innovation culture in family firms might be used to empower employees, as well as leverage trust with external networks. While non-family firms rely on the business system to build an organizational culture, family firms on the other hand use the family system to build a clan culture that may promote teamwork (Sanchez-Marin, Carrasco-Hernandez, Danvila del Valle, and Sastre-Castillo, 2016). Moreover, the founder's values create relationships with other stakeholders associated with the family business (Poza, Alfred, and Maheswari, 1997).

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## I. Review of Literature

### Innovation culture in regions

A firm's culture does not exist in isolation and can be heavily influenced by the regional culture (James, 2005; Saxenian, 1994). Culture is "that complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits" that define members of a specific society (Tylor, 1871; c1). Culture dictates the values, attitudes and behaviours of a group of people and determines the norms and expectations of those who live and work within a specific social group (McKeever, Anderson, and Jack, 2014). The culture of a region will determine whether society tolerates risk and change, celebrates the success of others, collaborates and cooperates, and accepts failure as part of normal course of doing business (Saxenian, 1994; Stephan and Uhlander, 2010; Mason and Brown, 2014; Spigel, 2017). These are all characteristics of a society conducive to innovation. A region's economic history is a major contributing factor of its people's perceptions, values, and attitudes towards entrepreneurial activities. Stuetzer, Obschonka, Brixy, Sternberg, and Cantner (2014) argued that the perception of a population concerning risk, success and failure is rooted in its industrial history. Nelles, Bramwell, and Wolfe (2005) suggested that historical economic conditions and entrepreneurial traditions create path dependencies for future generations to follow. Aoyama (2009) found that, in spite of globalization, a region's economic industrial heritage permeates new sectors of its economy. Therefore, a region's history of commerce provides insight as to why certain areas maintain a persistent level of entrepreneurial activity over long periods of time (Shane, 1993; Fritsch and Storey, 2014).

### Internationalization Strategies

Few studies have looked at internationalization decision making in family firms (Alkaabi and Dixon, 2014). Astrachan (2010) suggested research on family firms and internationalization can provide more insights on this growth strategy. Hynes (2010) argued that external factors, such as socio-economic, environmental, and/or political might create opportunities in international markets for the firm to pursue. On the other hand, other researchers suggest that internationalization is a process driven by agency theory (Andersson, 2000). Avrichir, Meneses, and dos Santos (2016) noted in their study that family-managed firms take fewer risks when entering new markets and tend to have longer-term goals.

Family firms conservative approach toward internationalization may be explained by a stage model

where companies use a gradual process to entering new markets (Kontinen and Ojala, 2010; Graves and Thomas, 2008; Graves and Thomas, 2004). Nevertheless, Graves and Thomas (2008) found that the 'Born-again Global' model applies when the family firm undergoes a succession to the next generation. Other studies have suggested that the second and later generations may alter the founder's vision and add internationalization to the firm's mission and objectives (Meneses, Coutinho, and Pinho, 2014; Janjuha-Jivraj, Martin, and Danko, 2012; Fernandez and Nieto, 2005; Bell, McNaughton, Young, and Crick, 2003; Knight and Cavusgil, 1996).

Moreover, the type of ownership structure influences the internationalization pathway. Kontinen and Ojala (2012) found that fragmented family ownership tends to use traditional internationalization pathways, while concentrated family ownership utilizes a 'Born Global' and/or 'Born-again Global' internationalization pathways. Tsao and Lien (2013) found a positive correlation between family ownership and the performance and innovation arising from internationalization activities.

## II. Research Design & Methods

The Suzuki Motor Corporation was selected as a case that illustrates the role of an innovation culture in a family firm. It also highlights the role of place in developing an innovative culture and links innovative behaviour to internationalization under different generations of the family firm. This case research followed guidelines suggested by Gerring (2007) and Yin (1994). Data collection consisted of information available at the Suzuki Plaza, the company's museum located in Hamamatsu, Japan. The data was triangulated from multiple public sources, including the company's annual general reports and publications in journals. In addition, private interviews with the museum curator, who worked under four generations of the family business, took place on December 22, 2017. The interviews consisted of open-ended questions focused on different generations of the family business. A longitudinal case research, starting with the founder to the current fifth generation leader, was then developed highlighting critical events throughout the company's history (Gerring, 2007; Stake, 1995).

### Suzuki Motor Corporation

Suzuki Motor Corporation (SMC) is a Japanese manufacturer of automobiles, motorcycles, and other motorized and electric vehicles. As of March 2017, the company had consolidated net worldwide sales of

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approximately US\$28 billion (SMC, 2017). Its head office and main manufacturing plant is located Hamamatsu, Japan. SMC also has manufacturing facilities and subsidiaries in India, Pakistan, Thailand, Indonesia, Germany, and Hungary. SMC employs about 15,000 people around the world.

In the fiscal years 2015 and 2016, 67% of SMC sales were from overseas markets. Consolidated net sales from overseas operations has risen from 59.6% in fiscal year 2012 based on sales of about US\$2.6 billion to its current figures. Ninety-one percent of the company's net worldwide sales came from automobiles, 6.5% from motorcycles, and the rest from other vehicles and products, such as outboard motors (SMC, 2017). In 2016, the company generated approximately US\$1.4 billion in net income.

In 2016, with a market share of 3.1%, SMC was ranked the 10<sup>th</sup> largest car manufacturer in the world, beating Mercedes-Benz (Paul, 2017). Its Indian subsidiary, Maruti Suzuki is considered India's largest car manufacturer. The Indian market accounts for approximately 50% of SMC's total global sales of automobile units and accounts for 30% of total global consolidated profits (Raj, 2015). SMC's strategy in India has been to capture 50% of the market by 2020 by introducing new automobile models. In 2017, SMC built a new manufacturing plant in Gujarat, with the goal of supplying cars to the African market (Raj, 2015). SMC, a family-owned business, has grown to become a large global car manufacturing company following principles laid by its founder, Michio Suzuki. SMC's corporate philosophy is predicated on the mission of providing superior value to its customers as well as developing innovative products. SMC's mission are principles that run deep within the Suzuki family. SMC's current President and CEO is Toshihiro Suzuki, the fifth-generation member of the family to lead the company. He sees the market in India as key to the growth of SMC. Although he holds the position of non-executive director at Maruti Suzuki, he has nevertheless attended all the board meetings held in India (Raj, 2015). Under Toshihiro Suzuki's leadership, SMC continues to innovate its current product lines to ensure growth in current and new markets, and to develop innovative products for the aging population.

### III. Analysis, Discussion & Findings

#### Innovation as a family trait

The Hamamatsu region, located in the east coast of Japan and formerly known as the Enshu region, has a unique

cultural characteristic exemplified in the spirit of "Yaramaika." Yaramaika in the Enshu dialect spoken in this region means "Let's just do it," and reflects the desire for the challenges and strong fighting spirit of the people in the region. Hamamatsu City was officially founded in 1911; however, the culture of this region dates back to the 8<sup>th</sup> century (Hamamatsu City, n.d.). During the Edo period in Japan, Hamamatsu served as the battleground for warring factions from Osaka in the south of Japan and Tokyo factions in the north. At the end of the civil war in the 16<sup>th</sup> century, Hamamatsu became the main road that connected both the Osaka and Tokyo regions.

In the late 1800's, Hamamatsu started building an industrial foundation, as well as key industries in textile and musical instruments. In combination with the spirit of Yaramaika, this industrial development encouraged new entrepreneurs and innovators. One of them was Michio Suzuki who, at age 22, founded Suzuki Loom Works in 1909. Michio trained to become a carpenter; however, a slowdown in construction projects affected job prospects and instead he decided to apply his carpentry skills and become an entrepreneur. After seeing his mother struggle with the hard labour of weaving a piece of textile, Michio started thinking in terms of simplifying and automating the weaving process. After carefully studying the process, Michio developed a vertical pedal-style weaving loom that he started selling to silk clothing manufacturers in Japan.

Over the following twenty years, Michio continued to improve the weaving loom. In 1929, the company started exporting weaving looms to international markets. With Suzuki Loom Works pursuing an internationalization strategy, Michio took another decision that would shape the future of the company. In the 1930s, he started to look for new products to manufacture. For Michio, it was important to apply the problem-solving skills learned during the development of the weaving machines. After conducting research, Michio took on the challenge to develop a small, light automobile that was practical to its user.

During the research and development stage, the engineering team tasked with developing a prototype struggled with the design and gave up on the technical challenge. However, Michio persevered with the project. "We've got to do what we've got to do," became the rallying cry from Michio that encouraged the team not to give up. In 1938, the engineering team developed a prototype in which the innovation consisted of a small four-cylinder car that used a front motorcycle engine of

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750 cc. However, the company's plan to start producing the car had to wait until the 1950s due to the start of the Second World War.

After the end of the war, Japan engaged in a period of reconstructing the economy. Michio's son, Shunzo, had joined the company and in the early 1950s he had seen the need to manufacture affordable motorized bicycles. In 1952 Shunzo and his father oversaw the design and manufacture of the Power Free, a two-stroke motorized bicycle. This innovation subsequently led the company to design and manufacture motorcycles. The two-stroke technology was later adapted and applied to the original automobile prototype that had been built before the war. In 1955, the company introduced the Suzulight automobile to the market. This light, compact automobile utilized technology that would later become common in automobiles. In 1954, with the success of the motorcycle, the company changed its name to the Suzuki Motor Company. In 1957, Shunzo Suzuki became President of the company, while his father remained as an advisor.

Under Shunzo Suzuki's leadership, the family business started to grow and consolidate Suzuki motorcycles as a global brand. However, Shunzo also continued to use the two-stroke engine technology to design mini-vehicles, as well as outboard engines for the boat market. In 1967, the company expanded internationally by building a motorcycle assembly factory in Thailand.

In 1973, third generation Jitsujiro Suzuki took over as President, while Shunzo became Chairman of the family business. Jitsujiro oversaw an internationalization strategy, whereby the company set up subsidiary operations in Canada, Indonesia, and Pakistan, as well as a joint-venture in the Philippines. Moreover, the company continued to bring innovations to their engines by developing a rotary engine and a four-stroke engine. New product lines included the development of a motorized wheelchair that allowed the company to enter the medical field. In addition, the company created a new division, Suzuki Home, that designed and manufactured prefabricated houses.

In 1978, Osamu Suzuki became President, while Jitsujiro was appointed Chairman of the company. Osamu Suzuki oversaw the company's growth into a global company. He had been involved in the company's initial internationalization strategy. During the 1980s, Osamu was instrumental in the company's expanding operations in Australia, New Zealand, and India. The Indian operations, Maruti Udyog Ltd. (renamed Maruti Suzuki in 2007), would become SMC's biggest market, as the

factory started to supply automobiles to Indian customers, as well as nearby markets such as Nepal and Bangladesh.

In 1981, the company entered into a joint-venture with General Motors Corporation and in 1984, it signed a cooperation production agreement with China. Under Osamu's guidance, Suzuki Motors Co. introduced all-terrain vehicles (ATVs) and a 1.0 L engine car, the Swift, which became the company's leading product. The company also introduced a 4-wheel drive sports utility vehicle, the Vitara in 1988. Total global automobile production reached 10 million units in 1989 and a year later the company renamed itself as Suzuki Motor Corporation.

In 1991, the company's global sales reached one trillion Yen (compared to 2016 global sales of 3.1 trillion Yen). In the 1990s, overseas geographic expansion included Vietnam, Korea, Egypt, and Eastern European countries, such as Hungary. It also started production of cars and motorcycles in China. Meanwhile, domestic production of mini-vehicles, the WagonR, reached 10 million units in 1995.

Osamu's leadership involved the use of diplomacy to build relationships. SMC did not compete directly against the big automakers. Instead, it saw itself as a small manufacturer. While joint-ventures were seen as modes of entries to international markets, SMC also engaged in joint-ventures with Japanese competitors such as Isuzu Motors Ltd. (in a three-way partnership with General Motors Corporation), Mazda Motor Corporation (to develop mini-vehicles), Nissan Motor Vehicles (to supply mini-vehicles), Fuji Heavy Industries (automobile projects) and Kawasaki Heavy Industries (motorcycle projects).

In 2000, Masao Toda, the first non-family member, was appointed President, while Osamu became Chairman. Osamu's son-in-law, Hirotaka Ono was still considered too young to take over as President. In 2003, Masao Toda stepped down due to illness and because Hirotaka was still being groomed for the leadership position, Hiroshi Tsuda took over as President. However, tragedy struck the family as Hirotaka passed away due to illness in 2007. Illness also forced Hiroshi Tsuda to step down in 2008 (Kim, 2008). With a lack of a successor, Osamu again took over as President of the family business in 2008, and stated, "There is no one suitable to take my place right now" (Kim, 2008, p.1). SMC continued to develop partnerships with competitors such as Mitsubishi Motor Corporation in Japan and Volkswagen in

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Germany. In addition, the company's R&D division has been focused on new technologies such as fuel-cell and electric vehicles that serve the ecologic market. In 2011, SMC introduced the world's first fuel-cell scooter; and started manufacturing and selling e-Lets, an electric scooter.

In 2013, SMC opened a subsidiary in Myanmar and total global automobile sales reached 50 million units. Over the course of the company's history, SMC has won many innovation awards, as well as cars of the year awards. In 2015 at age 85, Osamu's tenure as President ended as he passed the leadership to his son Toshihiro Suzuki. He continues to be active and serves as an advisor, as well as an ambassador to the company.

#### IV. Conclusion

The Suzuki Motors Corporation provides insights into the role that the family played in creating an innovation culture. This innovation culture has become a key component of the company's organizational culture; and has been shaped by innovative behaviour from the family that is reflected in their quest to continuously develop new products and new markets, as well as by the role of place in creating an environment that supports innovation.

One of the characteristics of family firms is their long-term commitment to the success of the organization, as well as the ability to engage the employees to the founder's vision (Habbershon and Williams, 1999). Realizing that the loom market was not enough to sustain the growth of the company, Michio Suzuki looked to apply skills learned in the development of the loom to seek out new product innovations. Cassia, De Massis, and Pizzurno (2012) found a correlation between the family innovative behaviour and new product innovations; and attributed the advantage to the family creating long-term trust in the development of new products. This was reflected in Michio Suzuki's support and trust in the skills of his engineering team to create a car engine. However, in the process of developing this engine, the organization also gained insights into new products, such as motorcycles and motorized bicycles.

An empirical study by Kraus, Pohjola, and Koponen (2012) found that, contrary to the belief that family firms are more conservative and less innovative, innovative behaviour reflected in product innovations provided a competitive advantage to family firms. An important internal factor is the family creating a tradition based on innovation that becomes part of the organizational culture

(Vrontis, Bresciani and Giacosa, 2016). In the case of SMC, Michio Suzuki was successful in embedding an innovation culture within not only the family and subsequent generations of the family, but also the entire organization.

However, external factors related to place also had a role in supporting innovations. This was possible because of the innovation culture that was embedded in the Hamamatsu region, as well as from the infrastructure that existed by being the centre of the loom industry. The loom industry had created a solid industrial foundation and ecosystem that included sub-contractors and academic-industrial research centres.

Aoyama (2009) argued that a regional culture of entrepreneurship evolves over time. In the case of Hamamatsu, this innovation culture started in the 18<sup>th</sup> century with the establishment of a lumber and shipbuilding industry. "The shipbuilding industry is known to demand the most sophisticated carpentry techniques among all woodworking and related manufacturing industries. The skills developed in the region were subsequently deployed in textiles, piano manufacturing, motorcycles, and automobiles" (Aoyama, 2009, p. 500). Aoyama (2009) also noted that Hamamatsu's culture of innovating based on skills development, as well as the region's openness to change and outside influence, has guided the region to new industries such as electronics and information technology.

Stuetzer, Obschonka, Brixy, Sternberg and Cantner (2014) and Nelles, Bramwell, and Wolfe (2005) suggest that the region's economic and industrial history may create a culture in the population that encourages entrepreneurship and innovation. In the case of SMC, Michio Suzuki displayed problem-solving and innovation skills from a young age. The development of an automated weaving loom not only helped the company grow in the domestic market, but it was also instrumental in helping the company pursue international markets. Hamamatsu's location as the centre between Tokyo and Osaka's political and economic influence, as well as the population's acceptance of change and foreign influence, suggest that the entrepreneurs of this region had developed a global vision, before globalization became a trend.

The SMC case illustrates how the company further demonstrates innovation through its internationalization strategies. The company started with a traditional pathway through export sales to international markets.

The second generation continued the company's strategy of new product development and oversaw the company's growth in international markets, including setting up the first manufacturing plant outside Japan. The third generation engaged in foreign direct investments by setting up subsidiaries, as well as manufacturing facilities in other countries. The fourth generation grew and expanded foreign operations and entered new markets. Throughout the company's history, SMC has adhered to a strategy based on market orientation (Newman, Prajogo, and Atherton, 2016). However, while agency theory might have been an important consideration factor in SMC's early internationalization ventures, the fourth and fifth generation of the family have also placed importance on the role of cultivating networks to facilitate internationalization entry modes. The network model proposes that network ties and relationships, as well as social capital play a role in the internationalization process (Osarenkhoe, 2008). However, in the case of SMC the network model also applies to the family firm's strategy of collaborating with different stakeholders, including competitors.

The fifth generation leader Toshihiro Suzuki acts as a steward in guiding SMC under the principles laid by the founder, Michio Suzuki. Under Toshihiro Suzuki's leadership, SMC continues to consolidate its dual strategy of new product innovations and internationalization. SMC's plans to develop products for the aging market is a continuation of Michio's vision of innovation through the application of learned skills and knowledge. In addition, SMC's plans to enter the African automobile market is a strategy based on scanning for opportunities in the external environment (Hynes, 2010).

In conclusion, the Suzuki Motor Corporation illustrates how a family firm can build long-term sustainable success through the development of an organizational culture based on innovation. This research also shows how each generation of the family business used different strategies to pursue internationalization and growth.

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# THE EFFECTIVE ORGANIZATIONAL FACTORS IN THE HEALTH SYSTEM INTEGRATION

**Bayaneh Seyedamini\* Leila Riahi\*\* Mahmoud Mahmoudi Majdabadi Farahani\*\*\* Seyed Jamaledin Tabibi\*\*\*\* Iravan Masoudi Asl\*\*\*\*\***

*An integrated delivery system is a coordinated system providing safer, more appropriate, and more economic health services. The present paper aims at investigating the organizational variables affecting the health system integration in Iran. This is an applied cross-sectional exploratory study. Successful patterns of integration in the health system were extracted and studied through literature review. Then, different dimensions of these models were compared in a comparative matrix. A questionnaire was designed and filled by experts. Exploratory factor analysis was performed to determine the effective factors and the model fit was examined through confirmatory factor analysis (CFA). The effect of organizational factor on the integration of the health system was estimated to be 0.93. Based on exploratory factor analysis (EFA), "learning organization" with factor load of 0.691 and based on the confirmatory factor analysis the "Interest Management" with factor load of 0.81 have the highest importance in the health care integration in Iran. The health system can be successful through the establishment of supportive policies, the development of the contract and the strategic alliance between the organizations and by increasing the coordination of care and information and increasing the collective learning ability in the organization.*

**Keywords:** Care Integration, Organization Integration, Health System.

## I. Review of Literature

An integrated delivery system is an integrated and coordinated system that provides safer, more appropriate, more economic health services (Enthoven, 2009). One of the most important forms of integration in the health care system is organizational integration. Intra-organizational correlations can lead to enhancement in various aspects, including quality, market share, and productivity via integrating the skills and specialties of different organizations (Kodner, 2009; Axelsson and Axelsson, 2006). Organizational integration is required in order for realizing the society-oriented care (Axelsson and Axelsson, 2006). The populations' demands necessitate that the organizations should take measures throughout the health care chain (so-called horizontal and vertical integration); They are responsible in a collective manner for the health and well-being of the considered society. It should note that, in excluded societies, there is a high desire for integration, since people of a huge difference in terms of wealth, education, culture should have an equal access to health care services (Kodner, 2009; Kodner and Spreeuwenberg, 2002). For instance, health and social care enterprises can be highly distinguished regarding professional roles, responsibilities, clinical actions or services and culture. The discrepancies in bureaucratic regimes, the amount of experience and expertise, the

mechanisms and rules of budgeting can complicate organizational integration (Valentijn, Schepman, Opheij and Bruijnzeels, 2013). An organizational integration is created at the central layer of the system by establishing agreements and strategic union among the organizations offering health and social care services. Organizational integration means the integration or coordination of organizational goals and performance measurement, management, and professional guidance of a variety of employees. Organizations formally create the

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organization integration through integration or through mutual assistance or through the coordinated providing networks or through contracts between individual organizations, with the mediation of a buyer. Integration of services, in which various clinical services provided at the organizational level are integrated through a team of multi-disciplinary specialists (Curry and Ham, 2010).

Organizational integration involves a variety of intra-organizational relationships and providing comprehensive services is performed throughout the care chain. Organizational integration includes intra-organizational relationships (e.g., contract, strategic alliance, knowledge networks, integration), and shared governance mechanisms for offering comprehensive services to a peculiar society (Valentijn et al., 2013).

Standardization of norms, values, opinions, skills and knowledge, standardization of outputs and standardization of work, planning and creating structured government activities are some mechanisms that facilitate organizational integration (Suter, Oelke, Adair and Armitage, 2009). The purpose of this research is to survey the organizational factors effective on in the health system coalition in Iran.

## II. Research Design and Methods

This study had a cross-sectional design and its main focus is centered on the formation and confirmation of the integration framework. In order to design a model of health system integration for Iran, this study was split into five phases, which are discussed below. In the first phase, the review of texts and library studies from 2000 to 2018 were done by keywords such as integration, health system integration, integrated care, integrated healthcare system, and integrated healthcare services in the databases of Google scholar, PubMed, ProQuest, and electronic journals. The references of the retrieved papers were used for searching the next related papers. The variables related to integration were extracted and confirmed through interviewing the experts and administrators of the health organizations. The factors effective on the health system coalition were obtained through comparative matrix. Finally, the initial researcher-made questionnaire was developed with 59 questions in 7 areas (functional, information, organizational, systemic, professional, normative, and clinical).

In the second stage, the data collection instrument was scrutinized in terms of the reliability and validity. The insights of 10 experts using two CVI and CVR metrics were adopted for face validity and logical validity. With

regard to the obtained results, the items count of the survey was decreased to 49 cases. Cronbach's alpha was utilizing in order to appraise the trustworthiness (reliability) of the questionnaire (0.96); the results obtained for the internal consistency demonstrated that reliability will increase by exclusion of two items. They were omitted and the research instrument was extracted in the form of a 47-item questionnaire. The items of the questionnaire were gauged by the five-point Likert scale, ranging from very little (1) to very much (5).

In the third phase, the questionnaire was distributed among the research population and the research objectives, confidentiality of information, and willingness to participate in the study were announced. In this phase, five provinces of Iran, namely, Kohgiluyeh and Boyer-Ahmad, Golestan, Khorasan Razavi, West Azerbaijan and Khuzestan were opted using multi-stage sampling method. Based on the sample size (10 times more than the items count of the questionnaire) and the probability of incomplete questionnaires, 550 questionnaires were distributed such that 110 questionnaires were distributed among the randomly selected public hospitals in each of the selected provinces. The managers of the executive, middle, and operational levels of the hospitals were provided with the questionnaires by face-to-face delivery, post, and email. Finally, 506 questionnaires were completed and collected. The collected data were entered into SPSS 21 and for determining the factors effectual in the health system integration, the exploratory factor analysis (EFA) was used; then, the factors having a specific value more than one were extracted. Considering the normality assumption of the research population, Kaiser-Meyer-Olkin (KMO) measure and the Bartlett Sprite test were employed in order to verify the precision of the exploratory factor analysis and the sufficiency of the sample size. In the fifth phase, the exploratory factors obtained from the fourth phase were validated and confirmed using the CFA and AMOS 23 software. The results obtained by CFA were studied using goodness of fit index (GFI). Figure 1 depicts the research design.

## III. Results and Discussion

The results of this study are summarized in three parts. In the first part, the comparative matrix of organizational variables derived from review studies of the health system integration (Table 1). In the second part, the of EFA and the tests for examining the accuracy and sufficiency of the sample size are presented. In the third part, the results related to the confirmatory factor analysis have been presented. GRIPA denotes Greater Rochester Independent Practice Association, CCNC is abbreviation of

Community Care of North Carolina, VA is short form of Veteran Health Administration, PACE is Program of All-inclusive Care for the Elderly, CC refers to Coordinated Health Care, PRISM represents Program of Research to Integrate the Services for the Maintenance of Autonomy, DMP is Disease Management Programs, PW is Participation in the work, MCN denotes Managed Care networks, LHCC is Local Health care cooperatives, CC is Care Chain, CM is Case Management and SM refers to Self-Management. Table 2 presents values of mean and standard deviation associated with mark (score) of answering the questions of the organizational dimension questionnaire based on experts' opinion. Based on these results, "Coordination of care and information for increasing interaction between the patient and the professional persons" is of paramount importance in the organizational dimension of care integration. Before performing the exploratory factor analysis, three indices were used in order to examine the accuracy of the test. Considering the normality assumption of the research population, the value of KMO index (0.971) indicated the sufficiency of the sample size; besides, the significance of the Bartlett test ( $p < 0.001$ ) showed the desirability of accomplishing the factor analysis. Regarding the figures obtained by EFA, five factors were extracted that explain 59.443 percent of the variance. The first factor with the special value of 22.83 explains 48.57 percent of the variance by itself. Varimax rotation was used for better alignment. Table 3 shows the variables related to the organizational factor and their factor load; they have been arranged according to the factor load. Based on the results of exploratory factor analysis, "learning organizations" have the greatest importance in the organizational integration of the health system.

The CFA method was utilized for validating the results obtained by EFA. Diagram 2 illustrates the CFA model, as well as the standardized coefficients. According to the standard estimates of path coefficients, the effect of organizational factor was 0.88. Moreover, the results showed that "interest management" with factor load equal to 0.81 ranks the highest position in terms of importance degree for the organizational integration of the health system (Diagram 1). The results of the CFA were scrutinized considering goodness of fit index (GFI). The value obtained from the division of the test statistic by the degree of freedom (CMIN/DF) had a value of 2.368 which is an appropriate value. Large size of the comparative fit index which is equal to 0.933 and the low value of the root-mean-square deviation (RMSD) of approximation (0.052) indicate the relative appropriateness of the presented model. Organizational integration means the integration or coordination of organizational goals and performance

measurement, management, and professional guidance of a variety of employees. Organizations formally create the organization integration through integration or through mutual assistance or through the coordinated providing networks or through contracts between individual organizations, with the mediation of a buyer (The Expert Group on Health Systems Performance Assessment, 2017). In our research, interest management, learning organizations, inter-organizational strategies, organizational characteristics (standardization of knowledge and skills), and coordination of care and increased interaction were confirmed as key features of organizational dimension. In the related studies, the provision of unique and held-in-common contractual medical care, joint decision-making and the motivation for coordination, the existence of specialized counseling groups and the quality assurance council have been proposed as factors affecting integration (The Expert Group on Health Systems Performance Assessment, 2017; Kodner, 2006; Halfon, Inkelas and Hochstein, 2000; Lipkin et al., 2005; Petrich et al., 2013).

Establishment of strategy and organizational support for regional networks (development of information technology, data analysis, etc.) and use of agreed contracts, multi-disciplinary team approach, policy agreement, compatibility with service continuity and formation of Multi-disciplinary teams, creation of a joint commission and investment attraction for participation in the work, the formation of multidisciplinary management groups and the common management philosophy that leads to the development of wider participation of labor force, dissemination of infrastructures supporting specialized advanced clinical protocols, implementation of clinical protocols and standards, are some organizational integration processes that have been presented in various health systems (The Expert Group on Health Systems Performance Assessment, 2017). Shaw et al. also have referred to the importance of structural coordination, government-related communications and policies in corporations, the development of official and non-official contracts, or the evolution of organizational structures in organizational integration (Shaw, Rosen and Rumbold, 2011). In Valentijn's view, the need for cooperation, inter-professional and inter-organizational cooperation, even collaborative work, are widely used as a means of offering integrated care service (Valentijn et al., 2015).

## IV. Conclusion

To achieve the goal of integration, the health system should focus on developing strategies for the development

of cooperation among different organizations. Standardization of knowledge, skills, outputs, procedure and supervision in an organization is also a way of creating coordination and integration in the organization. Joint projects and collaborative research between organizations, the creation of joint inter-organizational commissions and the orientation of personal interests with the interests of the organization are also key ways to the fulfillment of integration; it requires managers to work at high and operational levels.

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**Table 1: Comparative matrix of organizational dimension of health system Integration based on Models studied.**

Organizational dimension	SM	CM	CC	LHCC	MCN	PW	Mataror	DMP	PRISMA	CHC	Torbay	PACE	Mayo	VA	CCNC	GRIPA	Gesinger	Kaiser
Inter-organizational Common Responsibilities		✓	✓		✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Strategic Alliance between Organizations			✓		✓	✓		✓	✓				✓	✓	✓	✓	✓	✓
Managing interest and supportive policies					✓											✓		
Organizational features and standardize knowledge and skills and oversight		✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
Learning Organization and research and joint inter-organizational programs																✓		
Interdependence between organizations			✓		✓				✓		✓	✓	✓	✓	✓	✓	✓	✓
Joint commissions focusing on needs			✓	✓		✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	
Professional interdependence		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Clinical leadership		✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

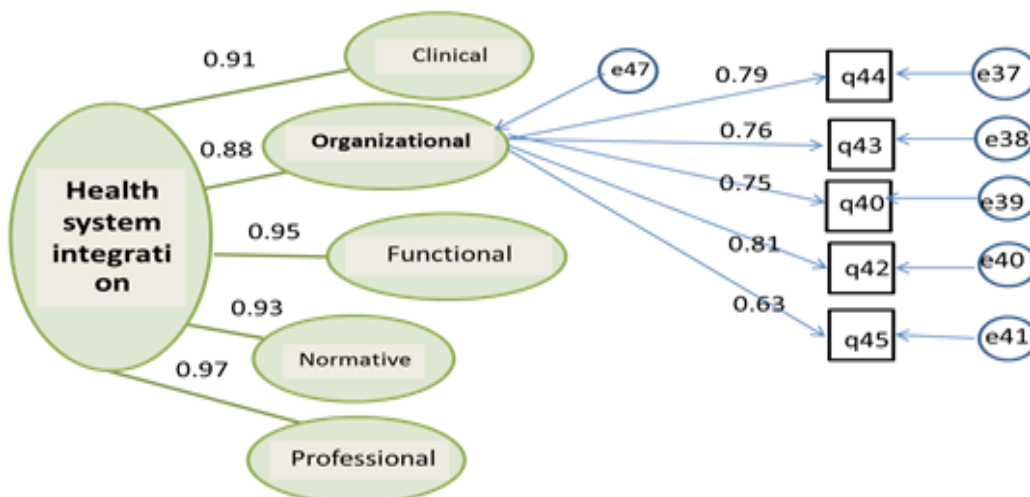
**Table 2: Score mean and standard deviation values for the response to the organizational dimension of health system integration.**

Question number	Questions about health system organizational integration	Mean	Standard deviation
Q40	Organizational Features: Standardization of knowledge, skills, outsourcing, methodology and supervision in organizations	4.11	1.193
Q42	Interest Management: Supportive policies to satisfy social, organizational and personal expectations in the organization	4.15	1.185
Q43	Inter-organizational strategies, contracts and strategic alliances between organizations	4.06	1.165
Q44	Learning organizations: Collective learning potential (collaborative research and programs between organizations)	4.02	1.273
Q45	Coordination of care and information to increase the interaction between patient and professionals	4.26	1.174

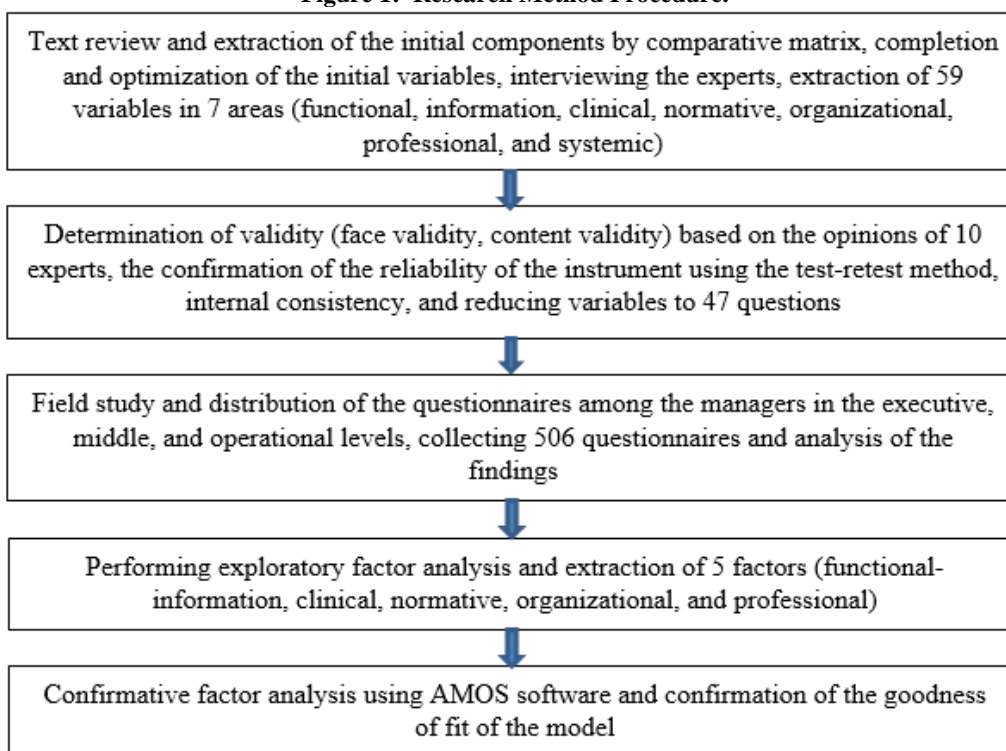
**Table 3: Factor load associated with the organizational aspect of the health system integration.**

question number	Questions related to the dimension of organizational integration	Factor load
Q44	Learning organizations: Collective learning potential (collaborative research and programs between organizations)	0.691
Q43	Inter-organizational strategies, contracts and strategic alliances between organizations	0.668
Q40	Organizational Features: Standardization of knowledge, skills, outsourcing, methodology and supervision in organizations	0.655
Q42	Interest Management: Supportive policies to fill social, organizational and personal interests in the organization	0.635
Q45	Coordination of care and information to increase the interaction between patient and professionals	0.556

**Diagram 1: Confirmatory Factor Analysis of the Organizational Integration of the Health System Based on Standardized coefficients.**



**Figure 1: Research Method Procedure.**



# EMERGENCE OF BRAND PLACEMENT IN DIFFERENT MEDIA VEHICLES: A REVIEW

Murtaza Hassan Itoo\*

*The brand placement usage is increasing across different media vehicles, making it vital for us to understand its consequence on the viewers. This literature review presents a quantitative synthesis of recent studies on brand placement and shows presence and growth of brand placement in different media vehicles. Brand placement has become more and more sophisticated and engaged more and more media vehicles – movies, television, reality TV shows, video games, novels, books, social media. Brand marketers are constantly exploring new ways to communicate their brands to the audience. The objective of this current study is to analyze the relevant bodies of work in order to grasp an understanding of the concept and emergence of brand placement from an academic point of view in different media vehicles and how brands are placed in different media vehicles.*

**Keywords:** Brand placement, Media vehicles, Movies, Reality TV shows.

Brand placement is one of the significant and new differentiation strategies for brands which is also a solution to the need to break through advertising jumble (Wilson and Till, 2011). Brand placement is “a way of promoting a brand by using movies and various forms of media to advertise the brand” (Lehu and Bressoud, 2009). Brand placement can be, for example, a Pepsi, Coke or Bisleri bottle on a table in a shot of a movie, TV program or any other media vehicle, and it might be there to create realism to the audience. But as a matter of fact, it is a paid brand placement in the specific media.

Brand placement has spread rapidly from the USA to other countries and has become an important addition to the marketing and promotion mix (Lee, Sung and Marina Choi, 2011). According to PQ Media, the three fastest-growing brand placement markets among 15 global brand placement markets are Russia, India and China. The brand placement phenomenon is penetrating every form of media. However, online and mobile devices are the fastest-growing media vehicles for brand placement (PQ Media, 2012). The wide use of brand names to create humour in popular writings such as novels, plays, songs, and mass circulation newspapers and magazines started in nineties (Friedman, 1991). Nowadays, marketers have not only incorporated their brands in different types of media but are also placing their brands on internet. Many websites have branded computer games, cartoons and free graphics or offer branded animations available to download. Similarly, BMW has expanded the boundaries of advertising formats on the web where their short films featuring BMW automobiles are the attraction, not an advertising distraction (Urbach et al., 2004).

The Indian media and entertainment industry is making high growth advances. The industry is on the edge of a robust stage of growth and improving advertising revenues, backed by increasing users demand (Indian Brand Equity Foundation, 2017). The M&E industry has been mainly driven by higher internet usage and growing digitization over the last few years. The Internet has become a mainstream media for entertainment for most of the consumers. The M & E industry of India is expected to grow at a Compound Annual Growth Rate of 14.3 per cent to touch Rs. 2.26 trillion (US\$ 33.9 billion) by 2020, while revenues from advertising is expected to grow at 15.9 per cent to Rs. 99,400 crore (US\$ 14.91 billion) (Indian Brand Equity Foundation, 2017). Given the huge opportunities, the advertisers, media people and brand managers are constantly searching for innovative ways to place brands in different media vehicles.

## I. Review of Literature

To study the concept and emergence of brand placement in various media vehicles. There are more than ten definitions of brand placements that are used interchangeably by researchers (Balasubramanian, 1994; Gupta and Gould, 1997; Karrh, 1998; Russell and Belch, 2005; Chan, 2012). However, these definitions don't take into consideration that brand placements are not always paid and are not restricted to movies or television only. One of the recent definitions that avoids the

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shortcomings of the earlier definitions of brand placement is given by Ginosar and Levi-Faur, 2010, "It is the purposeful incorporation of commercial content into non-commercial settings". According to Hudson and Hudson, 2006, brand placement- also known as product placement or brand integration -is a marketing practice in advertising and promotion wherein a brand name, product, signage, package or other trademark merchandise is inserted into and used contextually in a motion picture, television, or other media vehicle for commercial purposes.

## II. Research Design & Methods

Brand placement history shows that it was a form of 'barter system' (Newell, Salmon and Chang, 2006) which is still true today as seen from in-film placements which are a trade-off between the creative and financial considerations (Karrh, McKee and Pardun, 2003). Brand placement first appeared in Lumière films in the 1890s (Newell et al., 2006). More than a century later, brand placement appears in every medium (Van Reijmersdal, Neijens and Smit, 2007). In USA, the origin of brand placement can be traced back to the start of motion pictures itself in the 1890s (Hudson and Hudson, 2006). From 1930s onwards, owners of brands and movie producers actively engaged in brand placement deals. Undoubtedly, from 1950s onwards, the start of television gave brand owners another avenue for brand placement. The more recent 'wave' of brand placement began in 1982 when Reese's Pieces were used in the film E.T. The placement proved profitable for the candy's manufacturers. Ever since the brand placement in films and television has become an important element of marketing programs (Kaikati and Kaikati, 2004).

Brand placement, which has become a recognized marketing method due to its effectiveness, is not just for Hollywood, "big players" of brand placement also play in Bollywood movies as well as various media vehicles in India. The first Brand placement that can be noticed in Bollywood movies is in the movie called Bobby (1970) for Rajdoot Motorcycle. The practice of brand placement in Bollywood movies for money began in the movie "Dil To Pagal Hai" (1997) featuring several brands such as Levis, Killer jeans and Pepsi. The first extremely noticed brand placement was Coca-Cola in the hit Bollywood movie Taal (1999) (Kripalani, 2007). Bollywood movies are not the only vehicle for brand placements as brands are also increasingly being inserted in TV serials/TV shows, computer/videogames, songs as well as books. Many foreign brands like Coca Cola, Pepsi can be seen in both Bollywood movies and Indian TV reality programs.

The study is based completely on secondary research. The data has been collected from journals, books and articles on brand placement.

## III. Analysis, Discussion & Findings

### Brand placement in various Media Vehicles

Brand placement in different vehicles of media has increased dramatically in recent years (Wiles and Danielova, 2009). Brand placement could be found in various audio - visual works and is probably the most frequent in Bollywood movies and television (e.g. Nokia in Chennai express). Lehu (2007) also mentions the use of brand placement in television programs (Big Boss, Indian Idol), novels (The Da Vinci Code), music (Munni Badnam huwi darling tere liye, main *Zandubaam*.....) or branded videogames (FIFA 06, London Taxi). Hence, advertisers and brand managers are finding new vehicles to place their brands.

### Bollywood Movies

Bollywood is the largest film producing industry in the globe and is an influential and powerful medium that provides useful and entertaining information. In recent years' films produced in India have received attention across the globe. A majority of Bollywood movies are produced with English subtitles, and therefore many people around the world enjoy watching Bollywood films and get familiar with Indian culture and society through Bollywood movies. Movies has always been a strong contender for brand placements and has become a potential medium for projecting a brand as part of the emerging marketing strategy (Nagar, 2016). A movie without any brand placement present is rarely seen today. Practically, movie producers get financial support from marketers by adding various advertisements for the businesses (Lubbers and Adams, 2004). Brands are increasingly being placed within films as intentional persuasion devices to attract audience attention and to drive sales (Eisend, 2009). Researchers have studied brand placement in different media vehicles: movies (Redondo and Bernal, 2016), computer/video games (Gangadharbatla, Bradley and Wise, 2013), television shows (Russell, 2002), television magazines (Matthes, Schemer and Wirth, 2007), novels (Brennan, 2008), internet online games, sporting events, game shows (Gupta and Gould, 2007), virtual and online environments (Yaveroglu and Donthu, 2008), and video songs (Delattre and Colovic, 2009). However, most of the brand placement studies have concentrated on movies (33.87%), television programs (32.25%), and video games (20.21%) (Kureshi and Sood, 2010). But, brand placements are increasingly finding their way into other

media vehicles but are qualitatively different from a movie (Gupta and Lord, 1998). Brands like Coca Cola, Pepsi, Apple and Samsung are featured in Bollywood movies as brand placements. In a scene from the film *Shree 420* (1955) when Raj Kapoor, enters Mumbai, a large Coca-Cola banner was visible right above his head. Rajdoot motorcycle was featured in Raj Kapoor's *Bobby* (1975). The first recognized brand placement in Hindi film is "Coke" in Subhash Ghai's "*Taal*". Similarly, so many brands like ICICI, Yamaha, Pepsi, Lays were placed in Bollywood movies *Aakhein*, *Baghban*, *Dhoom*, *Khushi*, and *Krish* respectively. The practice of placing brands in Bollywood films for money began in the late 1990s Yash Chopra's *Dil To Pagal Hai* (1997) featured several brands such as Pepsi, Levis and Killer jeans. More recently, "*PK*" is an instance where Aamir Khan endorsed a multiplicity of brands namely Samsung laptops, Reliance and Kamasutra Condoms. Automobiles are among the more favorite brands for placement in Bollywood films as is evident from the movie "*Dhoom3*" starring actor Aamir Khan who promoted two-wheeler bike BMW K1300R while the lead actors Abhishek Bachchan and Uday Chopra straddle a bike BMW S1000RR each.

### Television

Television is the most common medium for brand placements, as it attracts more than 71% of all paid placements (Schiller, 2007). Also, television remains the most consumed medium worldwide, as witnessed by the large global audience for the Super Bowl in the US (PQ Media, 2012). Moreover, television has emerged as one of the largest media of mass communication, hence offering wide reach and easy accessibility than films. Because of the wide choice of formats, brand placements in a TV enjoy greater flexibilities than those in a movie. Brands are now opting for seamless integrations in teleserials. For instance, popular serials on Star Plus like 'Veera', 'Nisha Aur Uske Cousins', 'Saath Nibhaana Sathiya' and 'Ye Hain Mohabbatein' have promoted brands like Quikr and Amazon in their content.

TV brand placement has remained an effective brand strategy to engage as many eyeballs as possible without the disintermediation of ad-skipping DVRs (PQ Media, 2012). Target groups are in regular touch with television than films. TV brand placement is relatively cheaper than movie brand placement of brands. Brand placement is TV offer wide reach & easy accessibility than movies and frequency of watching a TV is greater than the frequency of watching a film. Even though there are advantages of brand placement in TV programs (diverse choices) other than in movies, brand placement in TV

programs have limitations too, such as the size of the screen and specific brand categories.

### Reality TV Shows

Reality TV shows are among various categories of television programs that constantly are becoming popular and receive appreciation. TV reality shows are defined as "programs that film real people as they live out events (designed or otherwise) in their lives as these events occur" (Nabi, Biely, Morgan and Stitt, 2003). Reality television is one of the most frequently watched television programming and its popularity is still growing (Patino, Kaltcheva, and Smith, 2012; Rose and Wood, 2005). Reality shows such as '*Big Boss*', '*Kaun Banega Crorepati*', '*Indian Idol*', '*MTV Roadies*', '*India Got Talent*', '*Dance India Dance*', '*Khatron Ke Khiladi*' and much more are hypnotizing the young generation of India. In '*Bigg Boss 10*', Colors signed up for brand placements with brands like APPY FIZZ, OPPO phone, and Garnier. '*Kaun Banega Crorepati*' (KBC 9) on Sony had placements of brands like Quick Heal inside the program (Neogy, 2015).

### Music

Music has a way of speaking volumes to the listener, so it's no surprise that brand placement has been a common part of chart-topping tracks for decades. Music brand placement as a particular type of branded entertainment is not new, and research on music for use in television advertisements and films has indeed shown some interest in the use of well-known, recognizable and "symbolically rich"—pre-existing music (Graakjær, 2013). One of the earliest examples of brand placement within a song in Hollywood can be found in "Take Me Out to the Ball Game". It had mention of "Cracker Jack", U.S. brand of snack. Not only Hollywood, brands were also integrated into Bollywood songs. A song from *Taal* movie "Ishq Bina" which was first brand placement for Coca Cola in a song. The latest example is of various brands find their place in Bollywood superhit songs now. The maker of ZanduBalm pain reliever and Boro Plus anti-septic cream has had its brands present in Bollywood super hit song of *Dabangg* movie (Mainzandu balm hui, darling tereliye) and Zandu Balm featuring in "Baby Doll... Laawa Zandu balm soniye. yeah!" song of *Ragini MMS 2*. In addition, the title song "Follow karun Twitter pe Tag karun Facebook pe" from Shahrukh Khan movie *FAN* featured many brands including Facebook, Twitter and Google.

### Video games

The business of advertising is changing in profound ways. Gone are the days when advertisers could reach large percentages of households by advertising on just a

few prime-time television shows. The present generation of 18-35-year-olds is watching less television and instead opting to play video games both online and offline (Gangadharbatla, Bradley and Wise, 2013). India today possesses a generation that understands and consumes computer and mobile games. A recent KPMG-FICCI study forecasts the Indian gaming market to reach \$800 million by 2017 (Gera, 2015). Therefore, video gaming, in particular, is one medium that is attracting huge attention for promoting brands and products.

Gaming in India witnessed its emergence with games like Snake, Tetris, Bouncing Ball, and Space Impact on feature phones. It evolved to a few simple games on PC like Solitaire, Super Mario and Pacman. In the last few years, India has grown into a slightly evolved gaming destination, due to the mass availability of smartphones. Various brands were found as brand placements in some unconventional Video Games like Crazy Taxi; Die Hard: Nakatomi Plaza. Further, video game brand placements represent the largest alternative marketing segment in terms of the concentration of marketing expenditure in recent years (PQ Media, 2012). More recently, western games like Candy Crush, Subway Surfers, Temple Run, Clash of Clans and Angry Birds have taken the digital Indian gaming industry by storm (Gera, 2015). These are interesting times with more and more gamers in India resorting to their tablets and smart phones to break away from the monotony of their lives to indulge in virtual play. This ready and growing customer base have inspired game developers to revive the traditional Indian games to gain popularity through instant recall and socio-cultural recognition.

### **Text**

Brand placement is almost impossible to avoid these days and has become popular as an alternative brand communication tool. Previous studies on brand placements have mainly considered the communication effects of brands placed in television programs, films and computer games (Olsen and Lanseng, 2012). However, brand placements are no longer present only in television and films. Recent examples are Broadway musicals (for example, Spamalot), songs (for example, Munni Badnam Huwi song of Dabaang featuring Zandu Balm), computer games (for example, Mountain Dew in Metal Gear Solid: Peace Walker) and more interesting for this article, text and literature (for example, The Bulgari Connection by Fay Weldon). Texts (for example, novels, short stories, poetry, comics, academic textbooks, nonfiction) can potentially be important 'entertainment vehicles' for brand placements (Russell and Belch, 2005).

Brand placements in texts such as books, novels, and magazines are an interesting option. Because brands placed differently in texts have different attitudinal effects and play a significant role in the story. For example, high plot integration brands in the text are more favorably evaluated than less prominently placed brands, that is, low plot integration (Olsen and Lanseng, 2012). In addition, involved readers evaluate highly plot-integrated placed brands more favorably than they do lowly plot-integrated placed brands. That's why the idea of brand placement within text including books, novels, and news stories is so appealing to many readers.

### **YouTube videos**

In the post-broadcast era, User-Generated Content (UGC) has transformed from an amateurs' experiment to one of the important concepts in the new media environment (Kim, 2010). UGC has been defined as "media content created or produced by the general public rather than by paid professionals and primarily distributed on the internet" (Daugherty, Eastin and Bright, 2008). Marketers are in the process of discovering the potential of UGC and are looking for ways to incorporate it into their campaigns (Thompson and Malaviya, 2013). As an online UGC medium, YouTube is a particularly significant cultural artifact in that it leads us to look into diverse important issues in the field of communication studies. Indeed, recent research has shown that UGC advertising is more involving and persuasive because it is easier for people to identify with its source (Thompson and Malaviya 2013). Product or brand-focused UGC might thus produce stronger effects on brand image than producer-generated communications.

### **Social Media**

The advent of social media has led to unprecedented delivery of multimedia content such as images and videos. Marketers are increasingly turning to social network sites to promote their brands, products, and services and to influence electronic word-of-mouth (Van Noort, Antheunis and Van Reijmersdal, 2012). Most of brand placement marketing activities within social media are based on a relatively simple format. In its simplest form, brand placement in social media consists of a writer producing some engaging content (e.g. an article) incorporated with a promotional message (e.g. a picture that includes product information) in order to promote the brand (Liu, Chou and Liao, 2015). According to Liu et al., (2015), brand placement in social media has become an increasingly popular way of reaching potential customers who are able to zap past commercials on traditional media. To reach these retreating audiences,

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Internet marketers use brand placements in more-clever and effective ways.

### **Brand placement in Bollywood Movies: Edge over other media vehicles**

Brand Placement in movies as an advertising medium has an edge over others. Films are an effective platform to bring desired change in consumers' attitudes or overall evaluations of the brand (Morton and Friedman, 2002). The cost of brand placement in films is quite low as compared to the above-the line methods of advertising or endorsement. Unlike advertising, brand placement does not interrupt programming and hence is less obtrusive. Furthermore, brands gain greater credibility when popular and respected movie and television stars use them. The film's release in a wide geographical area and across borders as well makes the brand placement in movies a better medium and hence, increases the brand awareness and corporate image manifold. Moreover, for an advertiser trying to reach an international market, films may be the best option. A typical movie with international distribution can now reach over one hundred million consumers as it moves from the boxoffice to video/DVD to TV (Hudson and Hudson, 2006).

### **Reasons for Brand Placement Growth**

Brand placement in movies and other media vehicles appears to be well accepted and this marketing communication practice is becoming more frequently used. Due to advancement and growth in the different communication and media types, brand placement has spread to other media forms also. Movies are not the only medium used for brand placement. Brand placements can be found in television shows, plays, songs, videogames, novels, book (Kretchmer, 2004). Brand placement will likely continue to grow and spread in the coming years as a response to (i) the ongoing diffusion of personal video recording devices that allow the people to make digital recordings of programs on multiple channels and then watch them without having to view advertisements (Smith and Krugman, 2009), (ii) the development of more efficient editing tools that allow moviemakers to insert virtual product placements during the post-production process (McDonnell and Drennan, 2010), and (iii) the progressive migration of TV viewers to internet where their favourite films/shows can be streamed with less or no advertisements (Strangelove, 2015).

### **Effectiveness of Brand Placement**

The effectiveness of brand placement has been defined as "an increase in brand knowledge or awareness (Beirne, 2008) and as a trigger to induce an action such as a

search for additional information or the purchase of a product" (Calvert, 2008). There are no common measures for brand placement effectiveness. Each brand placement agency used their own ways to measure the effectiveness of brand placements (Friedman, 2003). The traditional approach for measuring the brand placement effectiveness studied brand recall for visually portrayed or mentioned in a movie (Galician, 2005). The measurement approaches have later on extended to include the effect of the brand placement on attitudes towards brands and intention to purchase. Only a few studies have used multiple variables in testing the effectiveness of brand placement (Morton and Friedman, 2002; Balasubramanian, Karrh and Patwardhan 2006). A large number of brand placement researchers have conducted surveys of consumer and practitioner views to measure brand placement impact on brand awareness, attitudes towards the brand, and intent to purchase (Wiles and Danielova, 2009).

## **IV. Conclusion**

In an environment where a plethora of brands are fighting to get the consumers attention, a good marriage of content and communication using both in film advertising as well as brand association around good, bankable content should do the trick. Various media especially Bollywood film makers have been exploring different types of brand placement. However, advertisers and brand managers are continuously exploring new media vehicles to incorporate and promote brands. For instance, the fastest-growing media platforms for brand placement are online and mobile devices. Accordingly, brand marketers have upped their investments in brand placement in an effort to connect with harder-to-reach, multi-tasking consumers who are using digital and wireless technology to consume content more often and to view advertising less frequently. To conclude, we would like to emphasize that brand placement has great expectations for the coming years because this technique enjoys an increasingly favorable advertising environment and has been found to be a more effective way of attracting audiences from competitors.

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## A Book Review On “I DO WHAT I DO”

**Author:** Raghuram G. Rajan

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**Price:** Rs.699/-

**Neelam Tandon\***

September 2013, Raghuram G. Rajan, took the charge of 23<sup>rd</sup> Governor of Reserve Bank of India. The time when Indian rupee was depreciating at a fast pace, inflation was climbing up and current account was widening. The book authored by Raghuram Rajan, “I Do What I Do”, is about challenges of Indian economy, the role of RBI governor and the strength of RBI as an institution. The book is divided in three sections, section one comprises of nine chapters, with detailed illustration of his three-year journey as RBI governor. Section two highlights, Global Financial Crisis and true lessons learned from Great Depression. Section three comprises of some unique contribution of the author in the field of academics.

Chapter one of section one, “Setting the Stage”; the author has emphasized his level of trust in RBI as a great institution known for its tradition of integrity, independence, and professionalism. In volatile financial market and uncertain political environment, the author had emphasized on transparency and predictability of RBI towards citizens of India. Chapter two, “Hawks, Doves, or Owls”, highlights initiative of bringing fundamental change in monetary policy from Wholesale Price Index to Consumer Price Index and inflation targeting (as per the recommendations of Urjit Patel Committee Report). The author with an example of Dosanomics has explained the significance of inflation rate in calculating return on investment. The author has made an attempt to communicate to the people how RBI fights inflation and why lower level of Inflation is so important for sustainable economic growth of the country. In chapter three, “Making the Banking Sector More Competitive”, the author has explained how governance in public sector banks can make them competitive with respect to private

banks operating in India. Also, how vigilantly RBI had to give new banking license to only those who had a proven track record and reasonable capital. The author has proposed banks to look beyond the problem of bad debt and focus on growth through bringing transparency and professionalism in operations with minimum intervention of the government. In Chapter four, “Broadening and Deepening Markets”, author has explained three important reasons for increase in attractiveness of debt market in the year 2016, firstly due to lower and stable inflation rate, secondly; bank’s reluctance to pass policy rate cut down to bank lending rate and thirdly; the new Bankruptcy Code. In chapter five, “Financial Inclusion”, the author has explained how incorporation of technological advancement has resulted in result reduction of transaction cost and has facilitated financial inclusion in India. The author believes financial inclusion is an important element in ensuring access and equity, necessary building blocks for the sustainable growth of India. In chapter six, “The Resolution of Distress”, the author has highlighted the prime concern of RBI is to protect the lender, today the Public sector banks are lender to large promoters who defaults willingly or does not cooperate in repayment to the public sector bank, in other words the borrower robs the tax payers of the country and makes further lending more expensive. Hence the Bankruptcy code would bring discipline amongst borrowers. In Chapter seven, “The Economy and other Issues”, the author has explained the extensive role of RBI governor as a primary manager of macroeconomic risk of the country as well as the regulator. The governor objective is sustainable growth and development. The chapter has been concluded with due emphasis on strengthening macro-economic institutions to foster sustainable and stable growth through

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investment in idea producing institutions – research departments of official bodies, think tanks as well as universities. In chapter eight, “International Issues”, the author has raised issues such as whether unconventional monetary policy is the right tool to overcome immediate crisis and what are the spillovers from such policies to other countries and has proposed coordination in monetary policy amongst nations in terms of adhering to the ‘rules of the game’ to avoid unconventional policies with large adverse spillovers and questionable domestic benefits. Chapter nine, “RBI Matters”, is dedicated to the team of RBI; the author has praised the skill and caliber of RBI employees and has categorized them at higher level than international standards. He has explained how RBI younger staff truly represents Indian diversity with full of enthusiasm and eagerness to work and learn. Section one of the book concludes with message to RBI staff written by Raguram G. Rajan to congratulate the bank employees for their accomplishments. The author believes that sincere efforts of RBI employees in collaboration with government and other regulators will create better job growth and prosperity for the people of India.

Section Two, “The Global Financial Crisis”, is an abstract of the paper published in the IMF’s monthly Straight Talk, in September 2005. The author through this paper has explained how world may be riskier because of skewed incentives among investment managers and a word of caution to central banks to be prepared for the contingency. The author in 2005 had argued that the entire banking system would be at risk if banks holding a portion of credit securities in their book would default.

The interbank market could freeze up, and one could well have a full blown financial crisis. It is worth to note that two years later in 2007-08 it eventually happened. The author concludes section two with a caution note that history suggests abundant caution as well as a crisis offers a rare window of opportunity to implement reforms.

Section Three, “Occasional Pieces”, comprises of his research contribution in literary world. Through his paper written with Luigi Zingales, Saving Capitalism from the Capitalists, published in 2003, the author has explained how end of the cold war has given United States both the power and the interest to spread democracy and capitalism by force. The author believes democracy and free markets are hard to impose, no matter how beneficial they are. Other pieces of papers are Clever Solution: But Will It Work, Assume Anarchy, Odious or Just Malodorous, Aid Growth: The Policy Challenge, Debt Relief and Growth, The Great Game Again, highlights importance of domestic savings, secured property and individual rights, strong democracy, international aid and will and actions of the receiving country can bring change in life of people.

The book serves as an academic guide and a reference guide to students of MBA, Executive MBA, Industrialists, entrepreneurs, educators and practitioners. The book is a must for professionals professing in theory and practice of business in India.

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Jagan Nath Gupta Memorial Educational Society was established in 1993 to develop & train the next generation of professionals who would contribute towards the economic and social development of our country. The delivery standards, thus have been ensured to provide an inspiring learning environment which helps in transforming learning minds into result oriented professionals.

### Commitment to the cause of education

An infrastructure of around 10,00,000 sq. feet spread over 9 State-of-the-Art campuses, cutting-edge technology, professional guidance, practical training, international placements, ever evolving curriculum, choice of the best available professional courses... that's not all, the thrust is on the realization of your highest aspirations.

### Enviably Infrastructure

All campuses are hi-tech, wi-fi enabled with state-of-the-art laboratories, Labs, well-stocked along with complete recreational facilities. The classrooms are equipped with multimedia and audio-visual equipments to facilitate effective learning and are designed to promote maximum interaction between the faculty and the students.

### Guru Mantra

One of our biggest strengths is our faculty members, who have distinguished academic achievements to their credit and are actively involved in teaching, training, research, consultancy and a big pool of expert guest faculty, comprising specialists from industry, government and research institutions for ensuring a new edge to corporate learning and striking a balance between theory and practice.

### Academic Programmes\*

The academic programmes are specifically designed keeping in mind the current Indian economic scenario and the requisite corporate needs that expose the students to concepts, techniques and decision-making tools through an interactive learning process.

The courses are offered at various post graduate and under graduate levels at various campuses according to the needs of the aspirant at large:

<b>Management</b>	<b>Commerce</b>	<b>Engineering</b>
<b>Information Technology</b>	<b>Journalism (Mass Comm.)</b>	<b>Hotel Management</b>
<b>Art &amp; Design</b>	<b>Architecture</b>	<b>Law</b>

\*Select programmes offered at select campuses

### Great Corporate Exposure

An excellent learning environment is ensured at all times to display superior leadership qualities along with a value driven mindset and sharp intellectual acumen by way of constant interaction with industry professionals through summer internships, industry visits, guest lectures, seminars, mock interviews, pre-placement talks, campus interviews.

### Mentoring and Personal Enhancement

To prepare and equip students with requisite skills to face the corporate world, Personality Development sessions are organised to help build self-awareness and develop a positive attitude amongst students to cope with time and stress issues.

For further information contact:

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