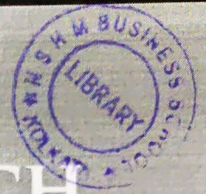


NSHM JOURNAL

OF MANAGEMENT RESEARCH AND APPLICATIONS



NJMRA Volume 6, Number 2, December 2016

Bi-annual Peer Reviewed Journal

© Copyright : NSHM Business School, NSHM Knowledge Campus Kolkata, India.

All efforts are made to ensure the correctness of published information. However the views expressed are those of respective authors and do not reflect the views of NJMRA or NBS. Every effort has been made to ensure that published information is free from copy right violations. However, authors are solely responsible for copyright violation if any and NJMRA does not accept any responsibility for any inadvertent omissions.

Printed at : BPW, Mob: 98366 78754

Chief Editor

Dr. Udayan Kumar Basu

Editorial Committee

Dr. Supriya Biswas
Dr. Soujanya Pudi
Prof. Shampa Chakraberty
Prof. Sameek Ghosh

Publisher

NSHM Business School, Kolkata

Editorial Advisory Board

Dr. Sudip Bhattacharjee
University of Connecticut School of Business, USA

Dr. Arpita Dhar
Jadavpur University, Kolkata

Dr. Diganta Mukherjee
Indian Statistical Institute, Kolkata

Dr. Tapan Panda
*School of Management, BML
Munjal University, Gurgaon*

Dr. Jayanta Kumar Seal
Indian Institute of Foreign Trade, Kolkata

MESSAGE FROM THE CHIEF-MENTOR

I am delighted to see the December 2016 issue of the NSHM Journal of Management Research and Applications (NJMRA), which aims at providing the much needed platform for a meaningful exchange of knowledge and ideas between the industry and the academic fraternity. Dealing with the subjects covering all possible areas of management, it is truly satisfying that NJMRA is shaping up as a standard journal by attracting innovative and quality articles from eminent academicians.

Such a steady progress would never have been possible without the sincere and sustained effort of the current editorial team and I compliment them wholeheartedly on this count.

Cecil Antony

Chief Mentor
NSHM Knowledge Campus

MESSAGE FROM THE FOUNDING DIRECTOR

It gives me great pleasure to find that the December 2016 issue of the NSHM Journal of Management Research and Applications (NJMRA) is out and ready for circulation. Needless to mention, this journal highlights NSHM Business School's commitment to research and innovation as an integral part of management training. To put such a quality research publication on a firm footing is no doubt a stupendous task and our current editorial team deserves kudos for accomplishing this mission. NJMRA has been meticulous about selection of the papers from a wide range of topics and is well poised to establish the much needed connect among researchers, academicians and company executives for a useful exchange of views and ideas.

I reiterate my deepest appreciation for the dedicated efforts by the current editorial team and wish them all the success in their endeavours.

Rajib Chanda

Founding Director
NSHM Knowledge Campus

MESSAGE FROM THE DIRECTOR

With the objective of presenting current research and ideas in the field of management in a lucid format accessible to both academicians and professionals alike, NJMRA is steadfast in its journey, thanks to the contributing researchers and practitioners. The range of articles and papers that are received for publication push the horizons of our knowledge beyond its current disciplinary boundaries, thereby making it future-ready in content. The ideas the various papers present go a long way in challenging our long-held assumptions and perceptions about the theory and practice of management.

One of the long established assumptions is that foreign banks with their deep knowledge-base across the globe are better performers than domestic ones. The first paper opines there are now reasons to believe that through benchmarking and other modes, there is not much difference in the performance of the foreign and domestic private banks. Knowledge management practices, long assumed to be relevant to large corporate bodies, have already made inroads into the MSME sector, as the second paper unravels. Industrially, though China is ahead of India, there are a few sectors where India leads like Gems and Jewellery, as the third paper explains. Similarly, a luxury brand sold in a retail chain positioned as value-for-money defies yet another assumption.

Hope the readers find the papers interesting enough to whet their contrarian perspectives. As always, any comment, criticism, or appreciation is most welcome from our valued readers.

Dr. Naveen Das

Director
NSHM Business School, Kolkata

FROM THE DESK OF THE CHIEF EDITOR

We take pleasure to present the December 2016 issue of the NSHM Journal of Management Research and Applications (NJMRA).

While bringing out the issues of NJMRA, our editorial team has steadfastly stuck to the cherished goal of providing a platform for publication of research articles of merit, book reviews adopting a broad based platform spanning key areas of management. The current issue is a collection of papers and articles from diverse areas such as banking and financial services, human resource management, marketing and business development.

The first article in this issue of the journal analyses the performance benchmarking of foreign banks on the basis of a bilateral comparison. The second article covers a conceptual approach on the impact of organizational culture and leadership styles on enhancing the effectiveness of knowledge management practices in MSME organizations of West Bengal. The third article has dealt with an analysis for gems and jewellery industry of India & China. . The fourth and concluding article is a perspective on retail repositioning by Maruti Suzuki. In the book review section, the book selected is 'Manage Live and Lead: An Inspirational Guide for Managers, Students and Citizens' authored by Venkat Changavalli.

We hope that, like the previous issues of NJMRA, this one too will be well received by the industry and academia. The editorial team would be glad to receive all kinds of comments and constructive suggestions for further improving the quality of the journal.

On behalf of the Editorial Team

Dr. Udayan Kumar Basu

PERFORMANCE BENCHMARKING OF FOREIGN BANKS - A BILATERAL COMPARISON

Dr. Ram Pratap Sinha

Abstract

The activity of foreign banks in India gathered renewed momentum in the post-1992 phase as a fall out of the initiation of banking sector reform and commitments given by the Indian government to open up its banking sector to the foreign participants in a gradual fashion. Against this backdrop, the present study benchmarks the performance of foreign banks operating in India relative to the private sector banks for the period 2006-07 to 2010-11 through a 'Bilateral Comparison Model'. The statistical inference drawn from the exercise indicates convergence of performance of foreign and private sector banks over the period of study.

Key Words

Foreign Banks; Performance Benchmarking; DEA; Bilateral Comparison.

JEL Classification: G21, C61.

Introduction

Commercial banking in pre-independent India commenced with the establishment British owned foreign banks during the 1840s and 1850s. In 1842, the Oriental Banking Corporation was set up at Bombay with royal charter which was followed by several others. Banks from countries like France, Germany, the US and Japan entered the Indian market. Thus at the time of independence, foreign banks occupied the commanding heights of the Indian economy. However, during the first four decades of independent India, the relative importance of foreign banks in the Indian banking sector diminished considerably due to the policy stance taken by the government as well as the Reserve Bank of India.

The operation of foreign banks got a fresh boost in the post 1992 phase as a fall out of the initiation of banking sector reform and commitments given by the Indian government to open up its banking sector to the foreign participants in a gradual fashion. During this period, the operation of indigenous private sector commercial banks also had a significant growth following the announcement of new entry policies towards private sector banks in 1993 and 2001.

Against this backdrop, the present paper attempts to benchmark the performance of foreign banks operating in India relative to the private sector banks through a 'Bilateral Comparison Model'. The sample used in the study includes 36 commercial banks (16 foreign banks and

Dr. Ram Pratap Sinha
Associate Professor of Economics
Government College of Engineering And Leather Technology
LB Block, Salt Lake, Sector-III, Kolkata-700098
E Mail: rampratapsinha39@gmail.com

20 private sector banks) and the period of study is from 2006-07 to 2010-11.

Organisation of the study:

The paper is organized into five sections and proceeds as follows. Section 1 gives a brief review of the recent regulatory changes relating to foreign banks. Section 2 outlines the methodological issues regarding performance benchmarking. Section 3 provides a review of the literature. Section 4 provides the framework of study and the results while section 5 concludes.

Section 1 : Foreign banks in India : the recent developments

During the phase of mass banking (1971-1991) the presence of foreign banks in India remained confined to a few metros/large cities. Consequently, the market share of foreign banks in respect of bank deposits declined from 8.6 per cent in March 1971 to approximately 2.8 per cent in March 1991. The relative share in the deposit market declined from 8.3 per cent to 4.16 per cent and in respect of loans and advances from 8.56 percent to 2.8 per cent.

However, the onset of banking sector reform in India facilitated the growth of foreign banking business in India since the government/ R.B.I. initiated a slew of measures which benefited the business prospects of foreign banks in India.

A major relaxation for the foreign banks came in the form of liberalization of entry norms. In the initial provisions of Financial Services Agreement (December 1994), India permitted foreign bank presence only through branches at the rate of five licenses per year. An ATM outside the branch premises was treated as a branch. What is even more important was that India's offers were based on reciprocity. However, in December 1997, during the final round of negotiations relating to financial services agreement India made the following commitments:

(a) The MFN exemption was deleted in respect of all areas of financial services.

(b) The limit on the number of bank licenses granted per year was raised from eight to 12 while keeping the market share unchanged at 15 per cent for foreign banks. Now the market share was computed on the basis of both on and off-balance sheet items. Moreover, licences issued for ATMs installed by foreign banks were not included in the ceiling of 12 licences.

In March 2004, the Government of India revised the existing guidelines on foreign direct investment (FDI) in the banking sector. The revised guidelines also included investment by non-resident Indians (NRIs) and FIIs in the banking sector. As per the revised (2004) guidelines, the aggregate foreign investment from all sources was allowed up to a cap of 74 per cent of the paid up capital of the bank and the resident Indian holding of the capital was to be at least 26 per cent. The revised also stipulated that foreign banks may operate in India through only one of the three channels, namely (i) branch/es (ii) a wholly owned Subsidiary or (iii) a subsidiary with an aggregate foreign investment cap of 74 per cent in a private bank.

In February 2005, the RBI in consultation with the Government of India, released the road map for presence of foreign banks in India. The roadmap was framed with the objective of implementation of the guidelines. The roadmap permitted the foreign banks to establish presence in the Indian market by either setting up a wholly owned banking subsidiary

(WOS) or conversion of the existing branches into a WOS. The RBI also issued detailed guidelines for setting up/conversion process.

The guidelines covered, inter alia, the eligibility criteria of the applicant foreign banks encompassing ownership pattern, financial soundness, supervisory rating and the international ranking. The WOS is to have a minimum capital requirement of Rs. 300 crore, i.e., Rs 3 billion and would need to ensure sound corporate governance. The WOS is treated on par with the existing branches of foreign banks for branch expansion with flexibility to go beyond the existing WTO commitments of 12 branches in a year and preference for branch expansion in under-banked areas. The Reserve Bank may also prescribe market access and national treatment limitation compatible with WTO as also other appropriate limitations to the operations of WOS, consistent with international practices and the country's requirements.

In 2011, the RBI released a discussion paper on the Presence of Foreign Banks in India. The discussion paper suggested a number of measures which would incentivize the conversion of foreign bank branches into wholly owned subsidiaries. At the same time, the discussion paper proposed revised caps on the dominance of foreign banks in the Indian market. Presently, the cap exists in the form of 15% of the assets (both on balance sheet as well as off-balance sheet items) of the banking system. The discussion paper proposed that when the capital and reserves of the foreign banks in India including WOS and branches exceed 25% of the capital of the banking system, restrictions would be placed on (i) further entry of new foreign banks, (ii) branch expansion in Tier I and Tier II centres of WOS and (iii) capital infusion into the WOS – this will require RBI's prior approval.

The discussion paper also stated that since the WOS of foreign banks will be locally incorporated banks, they should be treated similarly with domestic banks in respect of Priority Sector Lending norm. The RBI has accordingly issued revised priority sector lending norm for the foreign banks, which suggest that while the foreign banks with less than 20 branches in India will continue to get preferential treatments in respect of priority sector lending, banks with more than 20 branches would have to fulfil same priority sector lending requirement as that of domestic banks.

Section 2 : Bilateral Comparison- The Methodological Issues

Benchmarking of Productive Systems:

In the context of a multi-input multi-output production system, Shephard's (1953,1970) distance function provided a functional characterisation of the production technology. The input set of the production technology is characterised by the input distance function which gives the maximum amount by which the producer's input vector can be radially contracted. The output set, on the other hand, is characterised by the output distance function which gives the minimum amount by which the producer's output vector can be deflated and yet remain feasible for a given input vector.

Farrell (1957) laid the foundation for new approaches to efficiency and productivity studies at the micro level, providing invaluable insights on two issues: defining efficiency and productivity, and the calculation of the benchmark technology and the efficiency measures. The core of the contribution of Farrell comprised of the following:

- (i) introduction of efficiency measures based on radial uniform contractions or expansions from inefficient observations to the frontier,
- (ii) specification of the production frontier as the most pessimistic piecewise linear envelopment of the data,
- (iii) construction of the frontier through solution of the systems of linear equations, obeying the two conditions on the unit isoquant:
 - (i) that its slope is not positive;
 - (ii) that no observed point lies between it and the origin.

The Farrell measure of efficiency offered a decomposition of efficiency into technical efficiency, price (or allocative) efficiency and overall efficiency corresponding to a firm. The radial contraction/expansion connecting inefficient observed points with (unobserved) reference points on the production frontier as the basis for the measures is the USP of the approach, and due to fundamental duality between production- and cost functions identical measures can also be defined using the latter.

Farrell's definitions of efficiency had close connections with the concepts of distance function since the reciprocal of the input distance function can be considered as the radial measure of input oriented technical efficiency whereas the radial measure of output oriented technical efficiency coincides with the output distance function.

In their 1978 seminal paper, Charnes, Cooper and Rhodes (1978) provided a generalization of Farrell's Single input single output technical efficiency measure to the multiple output- multiple input case and their contribution resulted in the genesis of Data Envelopment Analysis (DEA). The methodology originally developed by Charnes, Cooper and Rhodes (1978) later further extended by Banker, Charnes and Cooper (1984). DEA enables the construction of a production frontier in the context of a multiple input-output framework with minimal prior assumption on input-output relationship.

The DEA approach constructs the efficiency frontier of productive units out of piecewise linear stretches thereby forming a convex production possibility set. In DEA frontier, efficient observations are those for which no other decision making unit or linear combination of units has as much or more of every output (given inputs) or as little or less of every input (given outputs). It envelops data sets and therefore makes no room for noise.

Once DEA identifies the efficient frontier, the performance of inefficient DMUs is improved by either increasing the current output levels or decreasing the current input levels. In the presence of undesirable outputs, however, such exercise is likely to give erroneous results. This is because, in such cases undesirable/bad outputs are to be decreased while good outputs are to be increased. The problem with the standard DEA model is that decreases in outputs are not allowed and only inputs are allowed to decrease. (Similarly, increases in inputs are not allowed and only outputs are allowed to increase.)

The BCC Model for Data Envelopment Analysis:

The Banker-Charnes-Cooper (1984) model introduced performance benchmarking of productive entities based on local technology. In order to provide an extremely brief review of the model, let us consider a productive firm which produces a scalar output Y from a

bundle of k inputs $x=(x_1, x_2, \dots, x_k)$. Let (x^i, y^i) be the observed input-output bundle of firm i ($i=1, 2, \dots, n$). The technology used by the firm is defined by the production possibility set. $P_s = \{(x, y) : y \text{ can be produced from } x\}$

An input-output combination (x^0, y^0) is feasible if and only if $(x^0, y^0) \in P_s$

We assume the firm to be input minimiser given the level of output(s). The firm's optimization exercise can be written as:

$$\begin{aligned} & \text{Min } \theta \\ & \text{Subject to: } \theta x^0 \geq X\lambda, \quad y^0 \leq Y\lambda, \quad \sum \lambda = 1, \lambda \geq 0 \end{aligned}$$

If we write the production function as: $Y=f(X) \rightarrow X=f^{-1}(Y)$. Let X^* represent the minimum input corresponding to a given level of output (say

A characteristic feature of the BCC envelopment model is that the technical efficiency varies between 0 and 1. This is because the data set which is used to evaluate the observed firm includes the firm's data also.

Comparison of Decision Making Units (DMUs) belonging to different systems:

One of the basic assumptions of the traditional DEA models is that the underlying production possibility set is convex. The immediate implication of this is that if two activities (x_1, y_1) and (x_2, y_2) belong to P_s then every point on the line segment joining the aforementioned two activities also belong to P_s . However, there are cases where this assumption is not valid. In particular, problems may arise when the decision making units belong to two different systems. For example, the activities (x_1, y_1) and (x_2, y_2) may be accomplished by using different kinds of instruments. Consequently, any activity which is basically an weighted average of the two may not be feasible.

Comparison of efficiency between two systems:

For the purpose of comparison of DMUs corresponding to the two different systems (say A and B), the inputs are divided into X_a and X_b and the outputs into Y_a and Y_b . The convexity assumption holds within the same system, but not across systems. The DMUs corresponding to the two systems are now evaluated using a bilateral comparison framework. The distinguishing feature of the bilateral comparison framework is that when DMUs belonging to a particular system (say system A) are evaluated, the data set from which the benchmark is constructed does not include DMUs included in that system (here system A). Thus the technical efficiency score for any observed DMU 'a' (which is a member of system A) is computed from the following optimization program:

$$\begin{aligned} & \text{Min } \theta \\ & \sum_{j \in B} x_j \lambda_j \leq \theta x_a \quad \sum_{j \in B} y_j \lambda_j \geq y_a \\ & \lambda_j \geq 0 \quad (\forall j \in B) \end{aligned}$$

Then Technical Efficiency $\theta = \sum x_j \lambda_j / x_a$

Similar procedure may be adopted for any observed DMU included in system B.

Statistical Significance of Efficiency Scores:

When we compare the efficiency of two different categories, it is often useful to test the efficiency difference between two groups statistically. However, one can not make use of parametric tests for this purpose because the theoretical distribution of efficiency scores in DEA is not known. Under the circumstances, one needs to make use of non-parametric tests for which the distribution of efficiency scores are statistically independent.

In the present context, we can use the Rank-Sum Test for comparing the distribution of efficiency scores of the in-sample DMUs pertaining to the two systems: A and B. The test is based on the ranking of data. The methodology is now described in brief:

Let the data pertaining to two groups of observation be represented by $A = \{a_1, a_2, \dots, a_p\}$ and $B = \{b_1, b_2, \dots, b_q\}$. Now we form a new sequence C by merging A and B in which the data are arranged in descending order. C is now ranked from 1 to $R (= p+q)$. If there is a tie, the mid rank is used for the tied observation. Next, the A's rank data are summed. Let the resultant figure be S.

The statistic S, follows an approximately normal distribution with mean $p(p+q+1)/2$ and variance $pq(p+q+1)/12$ for m,n

$$Z = [S - p(p+q+1)/2] / \sqrt{pq(p+q+1)/12}$$

Z has an approximately standard normal distribution. Using Z, we can test the normal hypothesis that the two groups have same distribution against the alternative hypothesis at a significance level α . The null hypothesis is rejected if Z

Section 3: Review of Literature

Saha and Ravisankar (2000) examined the non-parametric efficiency of the Indian public sector banks in two phases during the period 1992-95 in a two stage framework. The study considered four input variables- interest expenditure, establishment expenditure, non-establishment expenditure and six output variables: deposits, advances, investments, non-interest income, interest spread and total income. The results obtained by them show that the performance of the public sector banks (with the exception of a few) had improved over the years of study.

Sathye (2003) measured the productive efficiency of 94 commercial banks operating in India (including 27 public sector banks, 33 private sector banks and 34 foreign banks) for the year 1997-98. For this, he used two models: Model A and Model B. Model A considered interest and non-interest expenses as the two inputs and net interest income and non-interest income as the two outputs. Model B used deposits and employees as the two inputs and net loans and non-interest income as the two outputs. The study showed that as per Model A, the public sector banks exhibited a higher mean efficiency score as compared to the private sector and foreign commercial banks in India. As per Model B, they had lower mean efficiency score than the foreign banks but still higher than private sector commercial banks.

Shanmugam and Das (2004) measured technical efficiency of banks in four different ownership groups in India during the period, 1992-1999 with the application of stochastic frontier function methodology for panel data. The results obtained by them indicate that the efficiency relative to interest margin is time invariant while the efficiencies relating to other

outputs-non-interest income, investments and credits are time varying. The state bank group and foreign banks were found more efficient than their counterparts.

For the period 1992-2000, Rammohan & Ray (2004) benchmarked the performance of 58 public, private sector and foreign banks using a revenue maximisation efficiency approach. The study had taken loans, investments and other incomes as bank outputs and deposits and operating costs were taken as the inputs. Rammohan & Ray argued that during the period, Indian banks did not have much freedom in trimming costs especially the cost of labour. Under the circumstances, revenue maximisation best describes efficiency objectives of the in-sample banks for the period. The study showed that the public sector banks exhibited better performance relative to the private sector banks. However, no difference was found between public sector banks & foreign banks. Further, decomposition of revenue maximization efficiency scores into technical and allocative components showed that the difference between the public and private sector banks remained mainly because of gaps in technical efficiency and not in respect of allocative efficiency.

Das, Nag and Ray (2005) examined output oriented technical efficiency, cost efficiency, revenue maximizing efficiency and profit efficiency of Indian (public, private and foreign) banks for 1997-2003 in the context of four inputs - borrowed funds, number of employees, fixed assets and equity. The study included only those banks which had at least three branches during the sample period. The results revealed that the Indian banks were still not much differentiated relative to input or output oriented technical efficiency or cost efficiency. However, they differed considerably in respect of revenue and profit efficiencies.

Ray (2007) evaluated the size efficiency of Indian banks for the period 1997-2003. A bank is considered size inefficient if breaking it up into a number of smaller units results in a larger output bundle than what could be produced from the same input by a single bank. Ray's study showed that many of the Indian banks exhibit size inefficiency in various years. He also found that while a bank may be exhibiting diminishing returns to scale this did not necessarily imply that the bank was an ideal candidate for break-up.

Das and Ghosh (2009) examined the impact of financial deregulation on cost and profit efficiency of Indian commercial banks for the post-reform period 1992-2004 using data envelopment analysis. The results indicate high levels of cost efficiency and lower levels of profit efficiency, reflecting the importance of inefficiencies on the revenue side of banking activity. The decomposition of profit efficiency shows that a large portion of outlay lost is due to allocative inefficiency. A multivariate regression of the proximate causes of profit efficiencies highlights the importance of bank size, ownership, product diversity and prudential indicators as important variables resulting in these efficiency differences.

Using a translog cost function, Zhao, Casu and Ferrari (2010) examined the impact of a deregulation-prudential re-regulation framework on the characteristics of competitive behavior, cost structure and cost efficiency relationship of Indian banking for the time-span 1992-2004. The results indicate in favour of changes in input-mix and output composition in response to the changes in the regulatory environment as also improvement in cost efficiency after 1996.

Tabak and Tecles (2010) used Bayesian stochastic frontier to draw inference on cost and profit efficiencies of the Indian banking sector for the period 2000 to 2006. They also tested for the inclusion of off balance sheet data in model specification. The study revealed that the public sector commercial banks were most efficient, followed by private and foreign banks.

The performance of the banks, however, exhibited convergence over the sample period.

Ray and Das (2010) used DEA methodology to estimate cost and profit efficiency of Indian banks during the post-reform period. The results show considerable variation in average levels of profit efficiency across various ownership categories of banks. In general, state owned banks are found to be more efficient than their private counter parts. Further, efficiency tends to be low among the small banks (assets up to Rs. 50 billion), indicating that at the existing scale of operations, these banks are operating far below the efficient frontier. We also examine the distribution of efficiency using nonparametric kernel density estimates. The analysis reveals a rightward-shift of the efficiency distribution over the years. A major part of this shift comes from the state owned banks. Based on the conditional distribution, the study finds strong evidence of ownership explaining the efficiency differential of banks. Additionally, bank size and product-mix are also found to be important, although to a lesser extent.

Section 4: Framework of present study and results:

Approach of the present paper:

The present paper benchmarks the performance of foreign commercial banks operating in India (relative to the private sector commercial banks) for a five year span starting 2006-07 and ending 2010-11 using a bilateral comparison approach. The cross-section of commercial banks used for the study includes 36 commercial banks (inclusive of 16 foreign commercial banks and 20 private sector commercial banks). The data set excludes the relatively small and insignificant (in terms of Indian operations) foreign banks. The public sector banks have not been considered in the study because they have to play special role in fulfilling social obligations and hence the services rendered by them are not comparable with the services provided by foreign and private sector banks.

Selection of Output and Input: The Conceptual Issues

There are at least three approaches used for defining the outputs of the banking industry. The production approach [due to Benston (1965) and Bell and Murphy (1968)] considers indicators like the number of accounts, number of transactions etc. Most of the researchers following this approach have taken deposits and loans etc as outputs of the banking industry produced by inputs like labour and physical capital. The intermediation approach [advanced by Benston, Hanweck and Humphrey (1982)] focused on net interest margin (difference between interest earned and interest expended). The risk management approach [Huges and Mester (1993, 1994)] considers risk management and intermediation processing activities as the prime outputs of commercial banks. On the expense side, deposit servicing cost, labour cost and fixed capital related overheads constitute the major expenses on inputs by banks. Some have also taken branches maintained by commercial banks as one of the inputs.

The present study takes an eclectic view of the banking industry and considers two outputs: Business (=Deposits plus Advances) and Other Income (non-interest income) and one input: Operating Expenses of the commercial banks.

Data Source:

Data relating to the inputs and outputs used in the study have been collected from the Indian

Banks' Association website.

Descriptive Statistics of Technical Efficiency:

Tables 1 and 2 represent the descriptive statistics of technical efficiency scores corresponding to the foreign and private banks operating in India. Diagram 1 provides a graphical representation of the efficiency scores. Table 3 provides the combined result for the two groups taken together. Note the sharp drop in the efficiency of foreign banks in 2008-09 (possibly due to the impact of global meltdown). The appendix tables (A1 and A2) provide the bank wise efficiency scores.

Table 1 : Descriptive Statistics of Technical Efficiency of the in-sample Foreign Banks

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
Number of in-sample banks	16	16	16	16	16
Mean Technical Efficiency	2.1255	2.0404	1.6497	1.7063	2.1974
Standard Deviation	1.4387	1.31104	1.0806	1.3917	1.5481
Maximum Technical Efficiency	5.8352	4.9585	5.2307	5.5291	5.6257
Minimum Technical Efficiency	0.7039	0.7780	0.6602	0.1968	0.5521

Source: Calculated.

Table 2 : Descriptive Statistics of Technical Efficiency of the in-sample Private Sector Banks

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
Number of in-sample banks	20	20	20	20	20
Mean Technical Efficiency	1.1768	1.1679	1.9271	1.3596	1.2800
Standard Deviation	0.5447	0.7190	1.2114	0.6962	0.6541
Maximum Technical Efficiency	2.4085	2.8159	5.5491	2.4944	2.3821
Minimum Technical Efficiency	0.3964	0.2839	0.4979	0.2221	0.2018

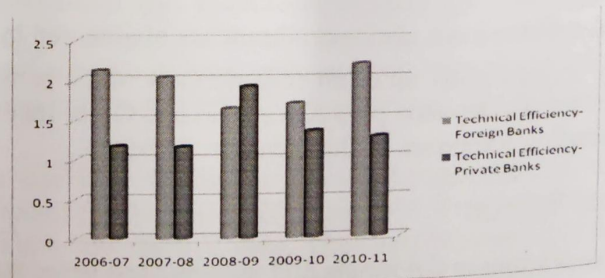
Source: Calculated.

Table 3 : Descriptive Statistics of Technical Efficiency of all in-sample Banks

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
Number of in-sample banks	36	36	36	36	36
Mean Technical Efficiency	1.5984	1.5557	1.8038	1.5137	1.6877
Standard Deviation	1.1432	1.1131	1.1633	1.0769	1.2291
Maximum Technical Efficiency	5.8352	4.9585	5.5491	5.5291	5.6257
Minimum Technical Efficiency	0.3964	0.2839	0.4979	0.1968	0.2018

Source: Calculated

Diagram 1: Relative performance of foreign and private banks



Testing of Hypothesis: Wilcoxon-Mann-Whitney Test

In the preceding sub-section the descriptive statistics corresponding to the technical efficiency scores have been presented. The present sub-section now compares the two groups of banks on the basis of the procedure outlined earlier. Our null hypothesis is that the two groups of banks have the same distribution of efficiency scores. This is tested against the alternative hypothesis that the two groups of banks have non-identical distribution of efficiency scores.

The Rank-Sum Statistics corresponding to the two groups, the test statistics and the corresponding value under standard normal distribution are presented in table 4. The table also includes the statistical inference drawn on the basis of the results available from the application of Wilcoxon-Mann-Whitney test.

Table 4: Statistical Inference

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
Rank Sum Statistics for Foreign banks	226	228	327	288	255
Rank Sum Statistics for Private banks	440	438	339	378	411
Test Statistics	-2.2285	-2.1648	0.9869	-0.2547	-1.30526
Standard Normal Distribution	0.012924	0.0152	0.1618	0.3995	0.095901
Inference drawn	Null hypothesis is rejected at a confidence level of 2.58%	Null hypothesis is rejected at a confidence level of 3.04%	Null hypothesis can not be rejected at 10% level of confidence	Null hypothesis can not be rejected at 10% level of confidence	Null hypothesis can not be rejected at 10% level of confidence
Performance of Foreign banks relative to the private banks	Foreign banks out perform private banks	Foreign banks out perform private banks	No definite conclusion	No definite conclusion	No definite conclusion

Source: Calculated

Table 4 suggests that while during the first two years of observation (2006-07 and 2007-08) the banks included in the category 'Foreign Banks' outperformed the banks included in the category 'Private Sector Banks', no definite conclusion could be made for the next three years. This is because the gap observed in respect of rank sum has narrowed down in the latter years (relative to the earlier years). Thus the evidence is suggestive of a converging trend in terms of performance in respect of the two groups of banks.

Section 5: The Concluding Observations

The advent of banking sector reform has increased the elbow room for both foreign and private sector commercial banks in India leading to growth in their activities in the Indian banking market. In view of the same, the present paper made a 'bilateral comparison' of

16 foreign banks and 20 private banks using non-parametric performance benchmarking procedure for recent years. The outcomes of the study are then subjected to non-parametric statistical test for comparing the distribution of efficiency scores. The results indicate that while in the earlier years foreign banks outperformed the private banks, no such conclusion could be drawn for the latter years under observation.

The present study uses static DEA framework for the purpose of benchmarking. An inherent shortcoming of the static framework that the frontiers are year-specific and not comparable intertemporally. A dynamic model can give more insight regarding performance of the two competing groups and that could be an useful agenda for future research.

(Note: The paper is a revised version of the paper presented at the IIFT Golden Jubilee Conference on Empirical Issues in International Trade and Finance held at Kolkata in January 2013).

Reference:

- Banker, R. A. Charnes and W.W. Cooper, 1984, "Some Models for Estimating Technical and Scale Efficiency", *Management Science*, 30:1078-1092.
- Bell, F.W., and N. B. Murphy.,1968. Economies of scale and division of labor in commercial banking, *National Banking Review*. 5,131-39.
- Benston, G.J.1965, Branch banking and economies of scale. *Journal of Finance* 20,312-331.
- Benston, G.J., G.A. Hanweck and D.B. Humphrey (1982): 'Scale economies in banking', *Journal of Money, Credit and Banking*, 19(1),435-546.
- Charnes A, W.W. Cooper and E Rhodes ,1978, "Measuring Efficiency of Decision Making Unit", *European Journal of Operational Research*, Volume 2:429-444.
- Das Abhiman and Saibal Ghosh,2009, Financial deregulation and profit efficiency: A nonparametric analysis of Indian banks, *Journal of Economics and Business*, Volume 61, Issue 6, November–December 2009, Pages 509–528
- Das Abhiman, Ashok Nag and Subhash C Ray ,2005, : "Liberalisation, Ownership and Efficiency in Indian Banking –A Nonparametric Analysis", *Economic and Political Weekly*, March 19.
- Farrell M.J.,1957,: "The Measurement of Productive Efficiency", *Journal of The Royal Statistical Society, Series A, General*, 120 (3) : 253 281
- Hughes. J. P., and L.J.Mester., 1994. Bank managers' objectives. Working paper no.94-8, Federal Reserve Bank of Philadelphia, Economic Research Unit.
- Huges,J.P., and Mester, L.J.,1993,:A quality and risk-adjusted cost function for banks: evidence on the 'too-big-to-fail' doctrine. *Journal of Productivity Analysis* 4, pp 293-315.

Ram Mohan T .T. and S C Ray ,2004,:”Comparing Performances of Public and Private Sector Banks-A Revenue Maximising Approach”, EPW,20 March, pp 1271 - 1276

Ray Subhash C. and Abhiman Das,2010, Distribution of cost and profit efficiency: Evidence from Indian banking, *European Journal of Operational Research* 201 (2010) 297–307.

Ray S.C. ,2007,: “Are Some Indian Banks Too Large? An Examination of Size Efficiency in Indian Banking”, *Journal of Productivity Analysis*”, Volume 27: pp41-56.

R.B.I.,2011, A Profile of Banks (2010-11).

R.B.I.,2011, Presence of Foreign Banks in India (Discussion Paper).

Saha, A. and T. S. Ravisankar, 2000, Rating of Indian Commercial Banks: A DEA Approach, *European Journal of Operational Research*, 124(1), 187-203.

Sathye, M.,2003,, “Efficiency of banks in a developing economy: the case of India”, *European Journal of Operational Research*, Volume 148 No. 3, pp. 662-71.

Shanmugam K. R and A. Das ,2004, Efficiency of Indian commercial banks during the reform period, *Applied Financial Economics*,2004, volume,681-686

Shephard, R. W.,1953, Cost and Productions. Princeton: Princeton University Press.
Shephard, R. W.,1970, Theory of Cost and Productions. Princeton: Princeton University Press.

Tabak Benjamin M. and Patricia Langsch Tecles, 2010, Estimating a Bayesian stochastic frontier for the Indian banking system, *International Journal of Production Economics*, Volume 125, Issue 1, May 2010, Pages 96–110.

Zhao, Tianshu , Barbara Casu and Alessandra Ferrari,2010, 'The impact of regulatory reforms on cost structure, ownership and competition in Indian banking', *Journal of Banking & Finance*,34,246-254.

Appendix tables:

Table A1: Bank wise technical efficiency scores- Foreign banks

Bank	2006-07	2007-08	2008-09	2009-10	2010-11
Abu Dhabi Commercial Bank Limited	2.151303	1.798706	0.789695	2.977208	3.83535
Antwerp Diamond Bank N.V.	5.835218	4.958483	1.573569	3.644719	4.675535
Bank of America NA	1.646647	2.007696	2.245656	1.692048	1.726806
Bank of Bahrain and Kuwait B.S.C.	2.995881	2.499692	0.882835	2.276688	3.236076
Barclays Bank PLC	1.675606	0.778033	0.6602	0.196816	0.652029
BNP Paribas	1.115321	1.418934	1.257082	0.758255	1.052322

Citibank N.A.	0.703942	1.043391	1.384612	0.543535	0.714546
DBS Bank Ltd.	1.361759	0.807921	1.833495	0.893723	0.552085
Deutsche Bank AG	0.854949	0.899265	0.882787	0.696162	0.902633
JPMorgan Chase Bank	2.465177	2.84199	5.230749	0.446986	2.839061
MIZUHO Corporate Bank Ltd.	2.271859	1.534709	1.053006	1.244535	2.05988
Standard Chartered Bank	0.929792	1.021115	1.238968	0.926666	0.958129
State Bank of Mauritius Ltd.	5.147431	4.958483	1.668835	5.5291	5.625694
The Bank of Nova Scotia	2.445141	3.138973	2.926535	2.872046	3.681473
The Bank of Tokyo-Mitsubishi UFJ Ltd.	1.665756	2.020509	1.537006	1.734168	1.818868
HSBC Ltd	0.741476	0.918217	1.22999	0.868396	0.827533

Source: Calculated.

Table A2: Bank wise technical efficiency scores- Private banks

Bank	2006-07	2007-08	2008-09	2009-10	2010-11
City Union Bank Ltd.	1.20458	0.995417	1.954414	1.672717	1.717277
ING Vysya Bank Ltd.	1.097886	1.296307	1.972387	1.251586	1.164929
Tamilnad Mercantile Bank Ltd.	1.054524	0.984546	2.287134	1.525485	1.455079
The Catholic Syrian Bank Ltd.	0.745277	0.283916	1.265636	0.659209	0.670862
The Dhanalakshmi Bank Ltd.	0.444174	0.289886	0.884011	0.738302	1.035355
The Federal Bank Ltd.	1.880573	2.264314	2.851545	2.235676	2.088873
The Jammu & Kashmir Bank Ltd.	2.408547	2.815914	5.549124	2.494439	2.160746
The Karnataka Bank Ltd.	1.965274	1.911724	1.844272	2.187028	1.745049
The Karur Vysya Bank Ltd.	1.562886	1.935469	2.237737	2.000802	2.094748
The Lakshmi Vilas Bank Ltd.	1.197945	0.572734	1.905463	1.232645	1.294887
Nainital Bank Ltd.	0.567564	0.48079	2.438889	0.496798	0.477324
The Ratnakar Bank Ltd.	0.396422	0.363788	1.071415	0.439943	0.253585
The South Indian Bank Ltd.	1.772039	2.100448	4.426127	2.428379	2.382147
Axis Bank Ltd.	1	1	1	1	1
Development Credit Bank Ltd	0.50587	0.35752	0.497887	0.222126	0.201775
HDFC Bank Ltd.	1	1	1	1	1
ICICI Bank Ltd.	1	1	1	1	1
Indusind Bank Ltd.	1.701282	1.730737	2.118708	1.479914	1.033345
Kotak Mahindra Bank Ltd.	0.699326	0.686838	0.666682	0.856903	0.645176
YES Bank	1.332171	1.286957	1.569729	2.270975	2.178486

Source: Calculated.

IMPACT OF ORGANIZATIONAL CULTURE AND LEADERSHIP STYLES ON ENHANCING THE EFFECTIVENESS OF KNOWLEDGE MANAGEMENT PRACTICES IN MSME ORGANIZATIONS OF WEST BENGAL: A CONCEPTUAL APPROACH

Surabhi Sinha

Abstract

The Micro, Small and Medium enterprises (MSMEs) play a crucial role in the overall growth and development of the industrial economy of the state and ultimately of the nation. Though MSMEs play a vital role in employment generation, enhancing export, balanced regional development, etc., they are still faced with numerous problems like lack of trained staff, technological obsolescence, high turnover of key personnel, etc. In order to overcome these issues and to gain competitive advantage, MSMEs need to manage their human and knowledge resources rightfully. Thus, like bigger organizations, MSMEs too need to adopt appropriate knowledge management practices to be successful and survive in this highly competitive market. The implementation of KM practices in an organization mainly depends upon its culture and leadership style among various other factors.

Keywords

Knowledge management practices, organizational culture, leadership style, MSMEs.

Introduction

Knowledge is one of the most vital organizational resources that provide a sustainable competitive advantage in a dynamic economy (e.g., Davenport & Prusak, 1998; Foss & Pedersen, 2002; Grant, 1996; Spender & Grant, 1996). To gain competitive edge over others, many organizations are adopting suitable KM practices to leverage their distinctive core competencies, to boost the effectiveness of their processes, enhance their productivity, improve quality of their products and services, and to reach innovative solutions and products for their customers.

The literature suggests that successful implementation and maintenance of KM practices depends upon several organizational factors like organizational culture, organizational structure, senior management leadership and commitment, employee involvement, team work, IT infrastructure, employee training and environmental factors like governmental policies, political, social, competition, fashion, markets, technology etc

Prior research studies have confirmed that lack of open and supportive organizational culture and leaders' vision and style are widely held responsible to create and leverage

Surabhi Sinha
Research Scholar, Calcutta University
sinhasurobhi@gmail.com

knowledge. The literature suggests that for KM implementation to be effective there is a need to analyze the fit between an organization and its KM objectives. Thus, it is very important to understand how organizational culture affects the organization's ability to create and apply knowledge. It is only then that appropriate strategies can be designed to either adapt to the organizational culture or reshape it to support KM objectives.

MSMEs generally have a flatter and less complex organizational structure with leaders / managers' being the owners of the firm and consequently the decision making is mostly centralized at managerial level. Thus, it may be said that the leader's (manager's) personality, behaviors and attitude have a considerable influence on the implementation and maintenance of KM practices. Also, in most MSMEs, the owner-manager plays a vital role in building the culture suitable for implementing the KM practices. Also, MSMEs have an additional problem to retain the specialized and competent employees. Thus, the departure of the knowledgeable and competent employees is a threat to the MSMEs unless they properly codify, store and transfer that knowledge. As a result, MSMEs need to implement and follow the requisite KM practices.

Review of Literature

Knowledge is the key asset for any organization (Hayek, 1945). According to Nonaka and Takeuchi (1995), knowledge includes both the experience and understanding of the people in the organization and the information artifacts, such as documents and reports, available within and outside the organization. As per APQC, "Knowledge management is a business strategy, best practice transfer, personal learning, customer intelligence, intellectual asset management and innovation." As per Dow Chemical it is 'providing the right information to the right decision maker at the right time, thus creating the right conditions for new knowledge to be created.' According to Davenport and Prusak (1998), KM is concerned with the exploitation and development of the knowledge assets of an organization with a view to furthering the organization's objectives. The increasing globalization of business, leaner organizations, products and service convergence and vast development of technology have made the issues of efficient and effective operation of an organization's knowledge assets more important than ever before. Thus, KM practices are critical to creation, storage, and sharing of knowledge, organizational learning, and performance accomplishment.

From the extant literature, Organizational Culture and Leadership style comes out to be the two major factors affecting the implementation and maintenance of KM practices in an organization. Schein (2004) concludes that organizational culture and leadership are two sides of the same coin. Organizational culture plays an elementary role in the creation, distribution and utilization of knowledge. One of the biggest ways in which organizational culture influences KM practices is by establishing the norms regarding sharing of knowledge. Organizational culture is believed to be the most significant input to effective knowledge sharing and organizational learning as it determines values, beliefs, and work systems that could encourage or impede knowledge creation and sharing.

The literature review also highlights that leaders too, play an important role in maintaining an environment conducive for KM practices that could help in enhancing the overall organizational performance. The literatures state that both transformational and transactional leaders have considerable effect on KM practices. By inspiring followers to question assumptions, be curious, take intelligent risks and come up with creative observations, transformational leaders encourage individuals to break through learning

boundaries and to share their learning experiences both within and across departments (Vera and Crossan, 2004). Transactional leaders, on the other hand, can improve the efficiency of learning organization by putting emphasis on existing values and routines and focusing on increasing efficiency in current practices (Bass, 1995).

Bhavani T.A. (2010) has highlighted the need of technological up gradation that would facilitate the small firms to generate quality employment. Sarbajit Paul (2013) has underlined the importance of collaboration between MSMEs, R&D institutions, as well as Universities and the Government Institutions supporting the development of MSMEs sector. The author further mentioned that, MSMEs can also benefit from the wealth of technological and commercial information available in patent and trademark databases to learn about recent technological breakthroughs, recognize future partners, and know about the innovative activities of the competitors.

Linking Organizational Culture and Leadership styles with KM Practices

Generally, MSMEs have simple organizational structures with flatter hierarchies and decision making is centralized at the owner's /manager's level. Also, they have relatively smaller number of staff and generally, there exists stronger interpersonal relationships among them. Thus, the leader's personality, behavior and attitude would probably have a considerable influence on the implementation and promotion of KM practices. Secondly, most likely a single organizational culture prevails in individual MSMEs. Thus, culture and cultural fit are more profound in MSMEs than in large organizations where several cultures may be present.

Organizational Culture and KM:

KM practices are highly influenced by the culture of the organization. Organizational cultures are developed through a learning process of interaction with its internal and external environment. Certain actions and procedures that have been successful in the past build up the basis of commonly accepted behaviors. Organizational culture brings sense, orientation and stabilization into a complex and dynamic world. Its elements are transferred by the process of socialization (telling stories, observing rituals etc.) and are not learned consciously (Schreyögg, 1991). The culture of a group evolves and changes over time as a result of changes in various influencing factors like business environment, leadership style, management practices and formal as well as informal socialization processes (Schein in Wilson, 2001). Organizational culture influences the tendency of the organizational members to share knowledge since it involve trust (Davenport and Prusak, 2000); the willingness to accept knowledge from others, without it being perceived as a personal deficiency (Chua and Lam, 2005); the willingness and ability to learn on an individual, group, and organizational level (Wu et al, 2010); the support of informal communication, mistake tolerance, and senior management commitment (Danesh et al, 2012); openness to change (Weber, 2007); the desire and ability to experiment, learn, and innovate (Skyrme, 2011a); the willingness to be open and honest and to admit mistakes (Pettersson, 2009); management of business processes and reaction to external changes (Wu et al, 2010). A "knowledge-sharing culture" is thus believed to be inherently preferred because of the growing importance of intellectual capital to organizations and the need for effective KM practices (Gupta & Govindarajan, 2000).

Organizational culture may influence knowledge sharing in two distinct ways. First of all, it can influence knowledge sharing by creating an environment in which there are strong social norms regarding the importance of knowledge sharing with others. Secondly, by creating an environment of caring and trust, which is quite important for encouraging individuals to share with others.

Studies have shown that while many big organizations have a bureaucratic culture, making them slower and less flexible in creating new schemes, MSMEs generally tend to have a more organic and fluid culture (Ghobadian & Gallear, 1997). Such a culture may facilitate faster and easier implementation of KM practices. Also, in most MSMEs, the culture is shaped and influenced by the personality, attitude and leadership style of their owner-manager as they have a strong dominance in the firm (Wong & Aspinwall, 2005). Thus, owners should involve themselves in emphasizing co-operation and knowledge sharing across the organization. They should also contribute to the creation of an environment in which knowledge creation, dissemination, cross-boundary learning can flourish.

Leadership and KM:

The importance of top management's support towards the implementation of KM practices has been established in several studies (Heaidari, Moghimi, and Khanifar, 2011; Khalifa and Jamaluddin, 2012; Danesh et al, 2012). Management leadership plays a vital role in the success of KM practices (Horak, 2001; Ribiere & Sitar, 2003). Leadership involves influencing a group of individuals having common goal, or a larger group encompassing an entire organization (Chemers, 1984; Northouse, 2001). KM requires proper supervision and assistance, decision-making, and change implementation etc. KM efforts require a clear vision (Singh and Kant, 2008; Botha, Kourie, and Snyman, 2008), policies and the example set by management (Wu et al., 2010; Tan, 2011). Leaders act as a role model to exemplify the desired behavior for knowledge sharing and affect the process and achievement of an organization's learning. Indeed, transformational leadership has positive effect on encouraging and emphasizing teamwork spirit and involvement. Leaders can not only improve the efficiency of the organizations by emphasizing on the existing values and routines and increasing efficiency in current practices, to enable them to foster rule-based ways of doing things (Bass, 1995) but can also encourage individuals to break through learning boundaries to learn new things and to share their learning experiences both within and across departments (Vera and Crossan, 2004). Motivating cooperative behavior among employees is one of the key managerial issues because "creating and sharing knowledge are intangible activities that can neither be supervised nor forced out of people and can happen only when people co-operate voluntarily" (Stauffer, 1999).

Since MSMEs have a simpler, flatter structure with minimum hierarchy, facilitating change initiatives may be relatively easy across the organization. Thus, in MSMEs such settings help the leaders /managers (who in most cases are the owners, supervising almost every aspect of the business) to become the role models and to set good example by showing the desired values, behaviors and culture required for encouraging the knowledge management practices. As there exists few layers of management and decision makers in MSMEs, the decision making chain is often shorter (Ghobadian & Gallear, 1997) and leaders/ managers being the owner in most cases, controls the decision-making. However, in most MSMEs,

the owner-managers are found to lack the required managerial skills and competence due to little formal management training (Morrison, 2003). Also, most owner-managers of small firms do not understand the true concepts of KM (Frey, 2001; Mc Adam & Reid, 2001). This may hamper their understanding about the importance of KM and thus may slow down the implementation of KM practices. An owner-manager who is both dictatorial and not committed can be problematic when implementing new initiatives (Achanga, Shehab, Roy, & Nelder, 2006). One who likes to hoard knowledge, control almost every aspect of the business, does not trust his/ her employees or punish the mistakes may hamper the smooth creation of a knowledge sharing culture as compared to a one who is more of open, democratic, trust his/her employees, welcomes innovation .

Thus, it is mainly the leaders' responsibility to motivate individuals, frame organizational objectives, and preserve the groups' and organizational culture. So, the challenge for today's leaders is to develop and maintain such a culture which actively encourages and facilitates KM practices. Thus, in most MSMEs, the owner-manager plays a vital role in building the culture suitable for implementing the KM practices. Unless and until they understand and internalize the concept properly, it is difficult to implement the concept in the rest of the organization.

MSME in West Bengal: Background

	Micro	Small	Medium
Manufacturing: Investment in Plants & Machinery	Up to 25 lakhs	25lakhs to 5 crores	5 crores to 10 crores
Service: Investment in equipments	Up to 10 lakhs	10 lakhs to 2 crores	2 crores to 5 crores

Table 1: Definition of Indian MSME

The Micro, Small and Medium enterprises (MSMEs) play a crucial role in the overall growth and development of industrial economy of the state and the nation as a whole. MSMEs constitute more than 80% of the total number of industrial enterprises and support industrial development. MSMEs contribute nearly 45% to manufacturing and about 40% to the Indian export sector. Their contribution to the Indian GDP is approximately 8% and the sector has registered growth rate of 10.8%. Indian MSMEs have moved up from the manufacture of traditional goods including leather, gems and jewelry, agricultural goods to the manufacturing sector. Though the Government of West Bengal with the help of Government of India has introduced various schemes to develop and expand this sector, MSMEs in West Bengal are still facing numerous problems like sub-optimal scale of operation, technological obsolescence, supply chain inefficiencies, increasing domestic and global competition, fund shortages, change in manufacturing strategies and turbulent and uncertain market scenario. To survive with such issues and compete with large and global enterprises, MSMEs need to adopt more innovative approaches in their working.

With globalization, there is an urgent need of a dynamic and self-sustaining culture of innovation and cluster based approach for the development of MSMEs. Today's world economy has been characterized as a "Knowledge-Based Economy" with knowledge being

the most important resource and learning being the most important process. Competitive advantage these days is derived less from access to physical resources and more from the ability of organizations and societies to generate ideas and to translate them into economic and social value. In the fast moving global order, knowledge and intellectual skills are critical to create and improve products and services, develop more efficient distribution and marketing methods and ensure customer satisfaction. New ways of knowledge management and application are needed to improve competitiveness. A knowledge economy is not just about accumulating information, but optimal utilization of knowledge to boost performance, which can be enhanced with proper KM practices.

Therefore, in today's highly competitive market, knowledge and its management has become the inevitable way to generate competitive advantages in small and medium enterprises as well. It is important for state's continued economic development that MSMEs, as one of the main sources of wealth, manage their intangible resources to keep on creating value, both business and social, and gain competitive advantage.

Characteristics of MSMEs:

MSMEs are generally characterized by simple and less complex structure mostly managed by its owner, flexible and adaptable business processes, modest human resources and expertise, smaller customer base, etc. Organizational "amnesia" is a natural feature of MSMEs as they often fail to retain knowledge acquired and lessons learned in the past, and are highly influenced by employee turnover (Elissaveta Gourova, 2010) and most MSMEs are labor intensive and rely on outdated technologies, traditional management practices (Singh et al ,2008). The basic values of the employees belonging to MSMEs are trust, cost consciousness, agility, risk taking ability, centralized decision making, culture of driving business by intuition and relationships rather than facts and professionalism. MSMEs generally exhibit informality which is exemplified by lack of written management procedures and practices (Kotey and Slade, 2005). Usually, the values of the owner of small businesses are the expected values or culture of the organization. Consequently, the owners play a more critical role in the development of their business than owners of larger businesses (Shuman and Seeger 1986; O'Farrell and Hitchens 988; Wiklund 1998a, 1998b) and this perhaps is one of the most important aspects restricting the growth of MSMEs as there is a dire need for change in the organization culture to match the challenges of business. MSMEs generally lack the understanding and ability to determine the competencies that are required by an employee to fulfill his role and gain competencies and skills. These skill gaps are found to exist at various levels.

Table 2: General characteristics of MSME

Ownership	Structure
Mostly started, owned and dominated by entrepreneurs Owner is mostly the strategic decision maker and decision making is generally centralized Directive and paternal management style more prevalent Modest management skills and competency	Flat, Simple and less complex structure with few layers of management and hierarchy Flexible structure and information flows Multi-tasked owner-managers Division of activities limited and unclear Low degree of specialization - more generalist

<p>Culture and behavior</p> <p>Organic, unified and fluid culture Departmental/functional mindset Corporate mindset is less prevalent Organizational / work culture is influenced by owner-managers' ethos and outlook Results oriented</p>	<p>Systems, processes and procedures</p> <p>Simple planning and control system Informal evaluation and reporting system Flexible and adaptable processes Focus on routine operational processes & less focus on strategic processes Activities and operations are less governed by formal rules and procedures Low degree of standardization and formalization Mostly people dominated</p>
<p>Human resources</p> <p>Modest know-how with less expert professionals Training and staff development is likely to be ad hoc and small scale Closer and informal working relationship</p>	<p>Customers and market</p> <p>Usually reliant on a small customer base Mostly local and regional market - few international More frequent and closer contact with customers Many know customers personally and socially</p>

Challenges regarding KM implementation & maintenance in MSMEs:

Among the several challenges for KM introduction, the most relevant to the MSMEs are as follows (E. Gourova, A. Antonova, N. Katsiadakis, 2007; M. Lefebvre, A. Antonova, E. Gourova, 2007):

MSME owners/ managers are often found to lack time and resources to focus on the capturing and sharing of organizational knowledge management practices.

MSME owners/ managers are usually highly involved in the operational activity and barely support the KM actions and tools actively.

Lack of awareness regarding technology solutions and tools available to cater their various needs

MSME managers are generally quite apprehensive to share knowledge, as they think doing so may lead to lose the company control, competitive advantage and information may flow toward competitors, etc. Lack of knowledge sharing attitude can also be seen among the employees as well.

Often MSMEs do not possess the necessary in-house resource person for implementing the KM initiatives and need an external expertise.

Lack of experience among the senior management, and management resistance.

Lack of financial resources

Approaches to KM in MSMEs

The implementation of knowledge management practices in MSMEs is a tough and challenging task. The processes of KM introduction in MSMEs incorporate building awareness about KM, determining its intended outcomes, auditing and valuing the present knowledge assets and resources, and finally, developing and implementing the best suited KM solutions in order to enhance knowledge and add value to the organization (M. Handzic, 2004).

Considering the specific characteristics of MSMEs, some important actions that could be taken in order to ensure KM success are:

Convincing the owners / managers about the benefits of KM, in order to ensure their full support for KM implementation.

Building KM awareness among employees at all levels about the needs and benefits of the KM implementation within SMEs; addressing the need of management approaches to cope with timely and quality information and knowledge flows.

Developing a suitable and practical KM approach which reflects the organizational and cultural aspects

Aligning the KM activities with the business strategies in order to ensure optimal benefits for the organization.

Creating a short term and visible impact of the KM program that would help in overcoming the resistance and gain further support for KM.

Ensuring non-financial and, if required, financial benefits to motivate the employees towards the KM initiative

KM Practices to be followed in MSMEs:

The various KM practices that the MSMEs may regularly follow are:

- Collaborating more with the industrial associations such as CII, BCII, etc. to gain recent knowledge about market, customers etc. and also to gain expertise and other needed resources.
- Optimum utilization of the knowledge gained from the competitors, customers and suppliers
- Collaborating more with the universities and the research centers.
- Encouraging experienced and veteran employees to share their knowledge with novice or less experienced employees
- Providing regular training to all the employees to sustain and update their knowledge, skills, and competences. Employees could be sent to attend training sessions by outside trainers; knowledge sharing and networking conferences etc., to provide them an opportunity to build networks and learn more than just what their jobs demand. MSME organizations need to invest in training and development that leads to skill development and job enhancement.

- Dedicating resources to identify and obtain external knowledge (technological vigilance)
- Regularly updating the databases of best practices, lessons learned etc.
- Technology tools like SMS, digital newsletters and e-mail can be used efficiently market their products and improve their market share.
- Technology up-gradation in packaging, skills up-gradation/ development for modern marketing techniques, competition studies of threatened products, identification of new markets through state and district levels, local exhibitions, trade fairs, corporate governance practices, marketing hubs etc should be done on a regular basis
- Knowledge sharing and enhancement through MSME cluster formation should be encouraged. (The Sports Good Foundation of India (Jalandhar, Punjab) established a common facility for mechanization of soccer ball stitching under UNIDO assisted cluster development programme. The facility perfected the technology for machine stitching and later served as a skill development and technology transfer facility for the member firms. As a result, this cluster got a product competitive to China and almost 40% of soccer ball exports from this cluster are of machine stitched balls).

Benefits of implementing KM practices in MSMEs:

Optimal utilization of knowledge would enable the employees to develop ideas about:

- how to take advantage of future market opportunities
- how technology might facilitate new product/process developments;
- what currently untapped resource or competencies will enable the business to meet these opportunities etc
- how the organization could operate differently to be able to deliver competitive advantage in the future; e.g. product and service improvements and new developments.
- how to explore the foreign markets

Thus, MSMEs can gain a lot from the proper implementation of KM practices. Some of the benefits may be:

- Better financial performance
- Enhanced employee skills and performance
- Enhanced employee creativity
- Improved customer orientation
- Enhanced motivational level
- Saving of time and cost
- Improved quality and speed of decision making
- Process improvement
- Enhanced level of innovation
- Better quality level of products and services
- Better understanding among employees
- Improved bargaining power against suppliers and customers

- Improved relationship with investors
- Gaining competitive edge over the competitors.
- Enhanced organizational memory

Conclusion:

The Micro, Small and Medium enterprises (MSMEs) in West Bengal play a crucial role in the overall growth and development of industrial economy of the state and ultimately of the nation. Though West Bengal has a prominent position in the nation with regard to strength and volume of MSMEs, they are still faced with many problems like lack of access to global markets, low technology levels and lack of access to modern technology, lack of skilled and trained workforce, lack of awareness programs about different schemes available for entrepreneurs, high cost of credit, supply chain inefficiencies, increasing domestic and global competition, etc. MSMEs may not compete with large organizations in terms of tangible resources (labor, physical infrastructure, technologies etc), but knowledge as an invaluable resource could provide them with many benefits if properly acquired, stored, shared, utilized and leveraged. The KM approach and practices adopted should be aligned with the business goals and objectives. Thus, MSMEs need to more actively adopt the various innovative approaches in their working. The implementation and maintenance of KM practices depends tremendously upon the culture and management support among other factors. In most MSMEs, the leader or manager being the owner of the firm plays a critical role in the implementation and preservation of KM practices as he/she is the ultimate decision maker. The leader may create a knowledge friendly culture and motivate the employees to adopt the requisite KM practices. So, it is essential for MSMEs in West Bengal to properly manage their knowledge resources by encouraging leaders to take up the requisite KM practices and creating a more knowledge friendly culture.

References:

1. Botterill, E. a. (2002). Information technologies for KM: their usage and effectiveness. *ITcon*, Vol. 7 , 125-137.
2. C.W. Holsapple, K. J. (2000). An investigation of factors that influence the management of knowledge in organizations. *Journal of Strategic Information Systems*, Vol. 9 , 235-261.
3. E. Gourova, A. A. (2007). Differences in Knowledge Management usage in seven European Countries,. 5th International Conference "Challenges in Higher Education and Research in the 21st Century, (pp. 40-42). Sozopol, Bulgaria.
4. Filemon A. Uriarte, J. (2008). Introduction to KM (pp. 32-44). Jakarta, Indonesia: ASEAN foundation.
5. Filemon A. Uriarte, J. (2008). Introduction to KM (32-44). Indonesia: ASEAN foundation.
6. Goudarzvandchigini, M. (2011). KM and Transformational Leadership in Organizational Success. *International Journal of Information and Education Technology*, Vol. 1, No. 5, , 377-379.

7. Gourova, E. (2010). Knowledge management strategy for Small and Medium Enterprises. Proceedings of the International Conference on Applied Computer Science, (pp. 639-648).
8. Gurteen, D. (1999). Creating a knowledge sharing culture. KM magazine, Vol. 2, Issue 5, 1-4.
9. Hai Nam Nguyen, S. M. (2011). Leadership behaviors, organizational culture and KM practices, an empirical investigation. Journal of Management Development, Vol. 30 No. 2, 206-221.
10. Hsu, I.-C. (2008). Knowledge sharing practices as a facilitating factor for improving organizational performance through human capital: A preliminary test. Expert Systems with Applications, Vol. 35, 1316-1326.
11. KalyanSengupta, B. B. (2007). Assessing Success Factors of KM Initiatives of Academic Institutions – a Case of an Indian Business School. Electronic Journal of KM Volume 5 Issue 3, 273-282.
12. Liao, S. (2003). KM technologies and applications—literature review from 1995 to 2002. Expert Systems with Applications, Vol. 25, 155-164.
13. M. Lefebvre, A. A. (2007). Difficulties for introduction of Knowledge Management in Small and Medium Enterprises in Europe. ECKM, Vol.2, (pp. 562-566). Barcelona, Spain, .
14. Maryam Alavi, D. E. (2001). KM and KM Systems: Conceptual Foundations and Research Issues. MIS Quarterly, Vol. 25, No. 1, 107-136.
15. Maryam Alavi, T. R. (2005). An empirical examination of the influence of Organizational Culture on KM Practices. Journal of Management Information Systems, Vol. 22, No. 3, 191-224.
16. Mas-Machuca, M. (2014). The Role of Leadership: The Challenge of KM and Learning in Knowledge-Intensive Organizations. International Journal of Educational Leadership & Management Vol. 2 No. 1, 97-116.
17. (2012-2013). Ministry of Micro, Small and Medium Enterprises. Annual report, Govt. of India.
18. Mostafa Bahrami, M. S. (2014). A Study of the driving factors of KM and Corporate Entrepreneurship in Iran. The IUP Journal of KM, Vol. 12, No. 1, 7-19.
19. Paulienè, R. (2012). Transforming leadership styles and knowledge sharing in a multicultural context. Business, Management and Education, 10 (1), 91-109.
20. Peris M. Koech, G. N. (2012). The Effect of Leadership Styles on Organizational Performance at State Corporations in Kenya. International Journal of Business and

Commerce Vol. 2, No.1 , 1-12.

21. Riege, A. (2005). Three-dozen knowledge-sharing barriers managers must consider. *Journal OF KM*, VOL. 9 NO. 3 , 18-25.

22. Sheng Wang, R. A. (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review*, Vol. 20 , 115-131.

23. Soud Almahamid, M. J. (2010). The Relationships among Organizational Knowledge Sharing Practices, Employees' Learning Commitments, Employees' Adaptability, and Employees' Job Satisfaction: An Empirical Investigation of the Listed Manufacturing Companies in Jordan, . *Interdisciplinary Journal of Information, Knowledge, and Management*, Vol.5 , 327-356.

24. Wong, K. Y. (2005). Critical success factors for implementing KM in small and medium enterprises. *Industrial Management & Data Systems* Vol. 105 No. 3 , 261-279.

25. www.dcdi_kolkata@dcmsme.gov.in. (n.d.). Retrieved December 2016

26. Younes A.A.Megdadi, A. S.-S. (2012). Factors and Benefits of KM Practices by SMEs in Irbed District of Jordan: An Empirical Study. *International Journal of Business and Social Science*, Vol. 3, No. 16 , 325-331.

REVEALED COMPARATIVE ADVANTAGE: AN ANALYSIS FOR GEMS AND JEWELLERY INDUSTRY OF INDIA & CHINA

Mamta Pankaj Jain
Dr. Shikha Sharma
Chitralkha Chatterjee

Abstract

This paper compares the export competitiveness for Gems and Jewellery industry of India and China. All the values for export and import of commodities have been taken from the International Trade Centre (ITC) online database for the study period 2001-2013. The Revealed Comparative Advantage (RCA) indices were calculated for 2-digit level of HS Classification, i.e., Gems & Jewellery (71) and also for 4-digit level of HS Classification to get a detailed and in-depth study of the various commodities, 7101-7118. We found that India has relatively better comparative advantage than China in the Gems and Jewellery (71) industry on 2-digit level. China holds a comparative advantage on eight commodities out of eighteen commodities of Gems & Jewellery industry at four digit level of HS classification as compared to India which hold comparative advantage in six commodities on four digit level.

Keywords

Gems and Jewellery, Export Competitiveness, Revealed Comparative Advantage

Introduction

The Gems and Jewellery sector has been one of oldest sectors traded by most of the important economies of the world. This sector has worldwide importance due to the

Mamta Pankaj Jain
Assistant Professor – Amity
Business School
Amity University Rajasthan
Mobile: 8769073412
Email: mamta9sep@gmail.com; mgupta3@jpr.amity.edu

Dr. Shikha Sharma
Professor – Amity Business
School
Amity University Rajasthan
Mobile: 9828387858
Email: ssharma2@jpr.amity.edu

Chitralkha Chatterjee
MBA Student – Amity Business
School
Amity University Rajasthan
Mobile: 8769043426
Email: Chitralkha.chatterjee@gmail.com

artistic element imbibed in it. Every nation has been producing jewellery since ancient times. With the increase in talented craftsmen the laborious works such as cutting and polishing of precious stones and diamonds has gained immense importance over the years. The Gems & Jewellery sector itself, has been extremely vital for Indian economy as well. The Indian economy has bounced back from recession and over the last four years (2010-13) has achieved a sustainable and annual GDP growth rate of 5% (World Bank, 2010-2014). The growth rate has been highly influenced by the Export sector itself. The total exports of India for the year 1988 were US \$13,872mn which has gained considerable momentum over the last two decades and has now reached US \$336,611mn, therefore, trade accounts for 53.23% of India's GDP (WITS, 2013).

India has been a late entrant in the Gems & Jewellery sector and it took quite some time to establish itself and have a foothold by incorporating the traditional designs along with international designs. The industry got a boost with the establishment of the various export processing zones by 1990, especially the Santacruz Electronics Export Processing Zone (SEEPZ) in 1987-88 which the government permitted for the manufacture and exports of Gems & Jewellery due to the industries' pollution free nature accounts (SEEPZ, 2013). The sector accounts for 13.9% of the country's total exports (WITS, 2013). As the cutting and polishing industry of diamonds is well supported by the Government of India, India has emerged to be the world's largest cutting and polishing centre for diamonds with a share of 65% by value, 85% by cartage and 92% by number of pieces (GJEPC, 2015). The industry, by 2015, is also forecasted to produce US \$35bn of revenue from exports. Among the top five products that are exported by India, Diamonds, not mounted or set (7102) and Articles of jewellery parts thereof (7113) are two such products that are exported by India to a large extent, that is, US \$27.08bn and US \$9.57bn respectively (WITS, 2013). The Gems & Jewellery sector is mainly dominated by some of the powerful nations like the USA, the UK, India, China, Thailand, Belgium etc. The top export partners of Indian Gems & Jewellery are UAE, China, USA, Belgium, Israel, Thailand, Singapore, UK and Japan. The importing markets of Indian Gems & Jewellery sector are Switzerland, Belgium, UAE, Hong Kong, South Africa, UK and USA (WITS, 2013). This industry has recorded an exceptional growth over the last forty years with its exports increasing from US \$28mn in 1966-67, when the Gems and Jewellery Export Promotion Council was established, to US \$35bn in 2013 (GJEPC, 2013). By 2018, the sector is expected to grow by US \$80.59-85.43bn (IBEF, 2015). Irrespective of the competition from China, with increasing initiatives by the private sector along with government efforts and incentives, the Indian Gems & Jewellery sector is expected to grow at a CAGR of 15.95% over the period of 2014-2019 (IBEF, 2015).

India's immediate competitors in this sector have been the USA, the UK, China and the UAE. For China, this sector accounts for 4.3 of the country's total exports (WITS, 2013). The top export partners of Chinese Gems & Jewellery are Hong Kong, USA, Japan, Korea Republic and Malaysia. And the importing markets of Chinese Gems & Jewellery sector are South Africa, Japan, Korea Republic, India and USA (WITS, 2013). India has a huge scope to develop and utilise its potential to successfully establish its market for diamonds when compared to China, especially when it has gained a higher rank over the Antwerp Diamond Bank, Belgium. The country's advantage would lie in exploring new target markets as well as adding value to the current market.

So this study has been undertaken to analyze the export competitiveness of the Gems &

Jewellery Sector of India and China. From this study an analysis of future markets will also be done for both the competing countries, where the competing countries can explore the target market in order to gain additional export advantage.

Literature Review

The Gems and jewellery, in different countries over the years have been through different dimensions, and have also been affected by different religious and cultural domains. In India, the traditional craft still has an important role in most Indian rural household. The craftworks in such households are not just for artistic pursuits, but are also a major source for their occupation. Sundaram (2001) gave a descriptive analysis of the potential of Indian Gems & Jewellery Industry. In his research, he stated that with regard to exports of Gems & Jewellery commodities, India has performed outstandingly over the years if volume of foreign exchange earned every year is considered. But he also clearly said that India needs an upgrade in its quality of Jewellery while keeping in mind the requirements of the European countries. Indian Gems & Jewellery exporters have recently started to participate in the International Fairs which have earned them requisite feedbacks. The export industry is also looking at newer markets such as Europe & Australia in order to reduce the dependency on the US market.

Garga (2002) gave an overview on the numerous aspects of promotion activities related to exports, hidden potential of India's major exports as well as how India can increase its share in world exports. He studied and analysed the crucial products for exports, such as, Indian handicrafts; jewellery; readymade garments; electronic goods and others. He stated that India's upcoming Gems & Jewellery industry has two loosely defined sectors which are, firstly, the Exports Processing Zones (EPZs) comprising of 100% export oriented units and secondly, the Domestic Tariff Area (DTA) which caters not only to the Indian domestic needs but to international markets as well. The Indian gems and jewellery products are exported to a large number of world markets such as UAE, Hong Kong, the USA, Belgium, Israel, Thailand, Singapore, the UK, Japan, Australia and Switzerland.

Gems & Jewellery Industry is one of the extremely global industries by nature (Mukherjee, 2008). It is clear that this industry has well distinguished sub-sectors categorised as gemstones, jewellery & pearls. This industry is one of the traditional industries and has been hugely impacted by numerous developments such as immense increase in competitions, dying down of trade barriers, change in customer taste and preferences and the major change being development of technology. Over the years due to various regulators and change in trade policies, the supply sources have become fragmented, which resulted in hike of raw materials prices. Studying these aspects, she forecasted that India has an immense potential to rise as the Gems & Jewellery hub as it has the best and the largest artisan workforce for designing and crafting the jewellery of the world. With various skill development programmes taken up by the Ministry of Commerce Government of India, this sector can do a great deal in quality management, professionalization as well as building capacity in the domestic and international front. This was also supported by (Research and Markets, 2011) which stated that the reason for India Gems and Jewellery industry to be one of the world's most competitive market is because of the abundance of skilled labour which leads to low cost of production. Not only Government support, the various forms of establishments along with other incentives provided by Special Economic Zones (SEZs) has been a major driver for this industry.

Shah (2012) stated in his report that the Indian Gems and Jewellery industry has been showcasing a growth of 10-15% per year and an increase in the volume of exports from US\$25.4 billion in the year 2009 to US\$46.36 billion in 2011, thereby indicating a net increase of an enormous 82.5%. A newer dimension was provided when the exports to Russia for 2011 increased from US\$ 3.13 million in 2009 to US\$ 8.2million in 2011 indicating net increase of 162%. The report also forecasted that a joint trade between India & China could be beneficial which could account over 30% of global diamond market in 2015.

The theory of comparative advantage is used to understand the international trade patterns. The concept of comparative advantage has been named the 'deepest and most beautiful result in all of economics' (Findlay, 1987). It gives an understanding that if a country is good in the production of one good also having the lowest opportunity cost and another country is good in the production of another good with the lowest opportunity cost in it, then both the countries should trade. David Ricardo gave the concept of comparative trade advantage for the first time in 1817 with the example of commodities such as cloth and wine being traded between the countries England and Portugal.

The Ricardian model was attempted to make it more generalized by Heckscher-Ohlin. As per his theory, a country's comparative advantage is assessed by its factor endowment ratios, that is, relative to the rest of the world. Balassa (1965) gave the widely used approach for analysis of Revealed Comparative Advantage, the Balassa Index (BI). He argued that when the factor costs for a country were unavailable, the exports of the country could give the comparative advantage as they reflect both relative costs and difference in non-price factors. The BI is in general, an index of revealed export advantage (RXA) which can be expressed as:

Equation (1) -

$$RCA = RXA = \frac{X_{ij}/X_{wj}}{X_i/X_w}$$

Where,

X_{ij} = i^{th} country's export of product j ;

X_{wj} = world export of product j ;

X_i = total export of country i ;

X_w = total world export

The magnitude value of the RCA index ranges comes from zero to infinity ($0 \leq RCA \leq \infty$). An RCA greater than 1 indicates Revealed Comparative Advantage in product j in country i , whereas RCA less than 1 means country i has comparative disadvantage in product j in world market. BI has been used widely in several reports and academic

publications but it has also been through various criticisms which led to several variants of the original BI. It was also argued that RCA is biased due to the omission of imports, particularly when country-size is important (D.Greenaway & C.Milner, 1993).

Since the RCA produces an output which cannot be compared on both side of unity, (Dalum, Laursen, & Villumsen, 1998), (Laursen, 1998) and (Widodo, 2009) obtained Revealed Symmetric Comparative Advantage (RSCA); this measure ranges from - 1 to 1.

Equation (2) -

$$RSCA = \frac{RCA - 1}{RCA + 1}$$

Laursen (1998) measured Symmetric RCA (RSCA) in order to overcome difficulties while using RCA values in statistical models. When the RSCA index of country *i* above zero, it is said to possess comparative advantage for product *j*. On the other hand, RSCA index of country below zero is said to possess comparative disadvantage for product *j*.

RCA alternative (Vollrath, 1991), suggests the possibility of simultaneous exports and imports for a commodity. The Vollrath (1991) index which holds for double counting in world trade has been used in this analysis. Vollrath (1991) proposed three alternative specifications of Revealed Comparative Advantage. In this study, the first of these measures is used which is the Relative Trade Advantage (RTA), and it holds true for imports as well as exports. It has been calculated as the difference between Relative Export Advantage (RXA), which equates to the BI, and its counterpart, Relative Import Advantage (RMA).

Equation (3) -

$$RTA = RXA - RMA$$

Where, $RXA = \text{Equation (1)}$ and

$$RMA = \frac{M_{ij}/M_{wj}}{M_i/M_w}$$

Where M represents imports

Thus

$$RTA = \frac{X_{ij}/X_{wj}}{X_i/X_w} - \frac{M_{ij}/M_{wj}}{M_i/M_w}$$

If the measure of RTA index is positive it shows that the country has a competitive Trade Advantage in the product, while negative value would indicate Trade Disadvantage.

Research Methodology

As the focus of the study is to assess the Export Competitiveness of Gems & Jewellery Industry for India and China in the world market, the comparative indices are calculated separately for all Gems & Jewellery commodities and for entire Gems & Jewellery

industry as a whole. All the values for export and import of commodities have been taken from the International Trade Centre (ITC) online database for the study period 2001-2013. The RCA indices are calculated for 2-digit level of HS Classification, i.e., Gems & Jewellery (71) and also for 4-digit level of HS Classification to get a detailed and more comparative study of the various commodities, 7101-7118. It is also necessary to understand that RCA indices do not work in isolation. They may sometimes be influenced by government interventions. Vollrath (1989) suggested that government interventions and competitiveness are inversely related, which means that a commodity which reveals comparative advantage can be more competitive if markets are more open.

The Revealed Comparative Advantage (RCA) introduced by (Balassa, 1965) has been used to analyze the competitive advantage of the jewellery industry for India and its immediate competitors. The RCA is an economist's tool that helps in identifying the particular industries or sectors that possess a competitive advantage in a country's economy. In order to get a more symmetric result which could be compared on both sides of unity, the Revealed Symmetric Comparative Advantage (RSCA) by (Laursen, 1998) is also studied.

Furthermore, since RCA showed trade patterns by considering only the exports of a country, the Relative Trade Advantage (RTA) (Vollrath, 1991) is also studied which gives the trade patterns by taking into consideration both imports and exports of a country. Since the study deals in the number of alternative RCA indices, it can produce varying results varying conclusions. Thereby, correlation analysis was performed to check the consistency of the result obtained from alternative RCA indices. The consistencies of these interpretations are measured by Karl Pearson's correlation coefficient for consistency of cardinality and Spearman's rank correlation coefficient for ordinality suggested by (Balance, Forstner, & Murray, 1987). The former finds out the extent to which a country possesses comparative advantage in a product, while the latter finds out whether the RCA index provides a ranking of products by degree of comparative advantage. The coefficients values closer to one for each test indicate that a pair of indices is consistent as a cardinal and ordinal measure of comparative advantage respectively.

Data Analysis & Discussions

The study analyses Export Competitiveness employing Balassa's (1965), Laursen's (1998) & Vollrath (1991) index at 2 & 4-digit level of HS Classification of the Gems & Jewellery Industry for India and China for the period of 2001-2013. The analysis gives a clear view about the commodities in which the countries are having comparative advantage in the Gems & Jewellery export for the study period. The three RCA indices that are demonstrated in this study have been calculated with export and import data for the four countries, and the data has been taken from International Trade Centre (ITC). In addition to the indices, the tables below present the average RCA, RTA and RSCA indices and CV for Gems & Jewellery Industry at 2 & 4-digit level.

A commonly used measure of industry specialization, on the basis of export data, is revealed comparative advantage, often referred to as the Balassa Index (BI) (Balassa, 1965). The Balassa Index gives the direction of trade flows and reveals a country's specialization patterns and therefore the revealed comparative advantage, but, not the source of this

advantage. The BI is calculated as the share of a given industry in a country's exports to the share of the same industry in total world exports. The Balassa Index does not differentiate among the destinations of exports, whether they are regional or international. Vollrath (1989) developed the "Revealed Competitiveness" (RC) index which incorporates both imports and exports. Laursen (1998) calculated the Symmetric RCA (RSCA) since the RCA was unable to produce an output that could be compared on both sides of 1. Thus, RSCA takes values from - 1 to + 1. The focus of this study is on the Export Competitiveness of the Gems & Jewellery Industry for India and its immediate competitors USA, UK and China by considering Balassa's, Laursen's and Vollrath's indices for a time period of 2001- 2013.

Revealed Comparative Advantage of India

RCA Index

According to the Table 4.2 we can see that, India holds a comparative advantage on nine of the products of Gems & Jewellery industry at four digit level of HS classification i.e., 7101- 7118. Diamonds, not mounted or set (7102), Articles of goldsmith's/silversmith's wares & pts (7114), Articles of jewellery parts thereof (7113), and Precious & semi-precious stone, not strug (7103) hold the highest comparative advantage among all the Eighteen gems and jewellery products. Out of the above four products, HS-Code 7102 shows least variation of 17%, thus giving a major advantage to the Diamond industry. The result tells that India has got an Export Competitiveness in diamonds which gives India an edge over others. Pearls, nat or cult, etc (7101), Syn/reconstr prec/semi-prec stones, not strg/mounted/set (7104), Dust & powder of precious or semi-precious stones (7105), Imitation jewellery (7117), Coin (7118) are the other commodities that have their RCA index above 1 and thus shows export competitive advantage. The RCA values thus infer that India has export competitive advantage in nine commodities and disadvantage in the other nine commodities which are Silver, unwrht or in semi-manuf. Form(7106), Base metals clad with silver, nfw than semi-manufactured (7107), Gold unwrought or in semi-manuf forms (7108), Base metals or silver, clad with gold, nfw than semi-manufactured (7109), Platinum, unwrought or in semi-manufactured forms (7110), Base metals, silver or gold, clad w plat, nfw than semi-manufactured (7111), Waste & scrap of precious metal (7112), Articles of precious metal or metal clad with precious metal, nes (7115), Articles of natural or cultured pearls, prec/semi prec stones (7116).

RSCA Index

Table 4.3 shows indices for Laursen's (1998) RSCA. India holds Revealed Symmetric Comparative Advantage in six commodities and the highest in Diamonds, not mounted or set (7102), Precious & semi-precious stone, not strug (7103), Articles of goldsmith's/silversmith's wares&pts (7114), Articles of jewellery parts thereof (7113). Diamond has the least variation of 2% which thus makes it have highest Export Competitiveness for India. RSCA take values from -1 (when RXA tends to infinite, which indicates absolute export advantage) to + 1 (when RXA is zero and exports are minimal). The Table 4.3 values confirms the values of RCA of Table 1, by showing advantage in exporting commodities Diamonds, not mounted or set (7102), Precious & semi-precious stone, not strug, (7103), Dust & powder of precious or semi-precious stones

(7105), Articles of jewellery parts thereof (7113), Articles of goldsmith's/silversmith's wares&pts (7114), Imitation jewellery (7117). These commodities have a clear export advantage as their mean RSCA values are nearer to +1. The commodities Pearls, nat or cult, etc (7101), Syn/reconstr prec/semi-prec stones, not strg/mounted/set (7104), Coin (7118) on the other hand though showed Revealed Comparative Advantage in Table 4.2, the RSCA index deals with the shortcomings and asymmetry of RCA values and gives a more appropriate result for export competitiveness by giving a measure that ranges between -1 and +1. Commodities Silver, unwrht or in semi-manuf. Form (7106), Gold unwrought or in semi-manuf forms (7108), Base metals or silver, clad with gold, nfw than semi-manufactured (7109), Articles of precious metal or metal clad with precious metal, nes (7115) have shown Export Disadvantage continuously for the study period and thus do not have significant export advantage for India.

RTA Index

Table 4.4 shows the indices for Vollrath (1989) alternative specification for RCA, i.e., Relative Trade Advantage (RTA). India holds relative trade advantage in ten commodities which are Pearls, nat or cult, etc (7101), Diamonds, not mounted or set (7102) and Precious & semi-precious stone, not strug (7103), Dust & powder of precious or semi-precious stones (7105), Base metals, silver or gold, clad w plat, nfw than semi-manufactured (7111), Waste & scrap of precious metal (7112), Articles of jewellery parts thereof (7113), Articles of goldsmith's/silversmith's wares&pts (7114), Articles of natural or cultured pearls, prec/semi prec stone (7116), Imitation Jewellery (7117). All the other eight commodities have their mean RTA value <0 , thus showing a Relative Trade Disadvantage in the Gems & Jewellery sector. Both the commodities Silver, unwrht or in semi-manuf. Form (7106) and Gold unwrought or in semi-manuf forms (7108) have relative disadvantage continuously over the study period. This says that both the commodities are not advantageous for India as they have shown signs of repeated trade disadvantage. Both the commodities also show repeated comparative disadvantage of -0.85 and -0.91 respectively from the RSCA indices (Table- 4.3). Thus the two commodities are not of much significant importance for India. The increase in the number of commodities from six as seen in 4.1.2(b) having Export Advantage to ten commodities having Relative Trade Advantage suggests a contradictory result which states India does export the four commodities (Pearls, nat or cult, etc (7101), Base metals, silver or gold, clad w plat, nfw than semi- manufactured (7111), Waste & scrap of precious metal (7112)), Imitation Jewellery (7117) but the four commodities doesn't hold an Export Advantage in the RSCA Table 4.3 as such because of high domestic consumption as Indians are fascinated with Gems & Jewellery from an ancient times. So, these commodities only possess trade advantage, and not export advantage.

Revealed Comparative Advantage of China

RCA Index

From Table 4.5 we can see that, China holds a comparative advantage on eight commodities out of eighteen commodities of Gems & Jewellery industry at four digit level of HS classification i.e., 7101-7118. Pearls, nat or cult, etc (7101), Dust&powder of precious or semi- precious stones (7105), Silver, unwrht or in semi-manuf. form (7106),

Articles of jewellery parts thereof (7113), Articles of goldsmith's/silversmith's wares&pts (7114), Articles of precious metal or metal clad with precious metal, nes (7115), Articles of natural or cultured pearls, prec/semi prec stones(7116), Imitation jewellery(7117) hold comparative advantage as their mean RCA values are >1 among all the eighteen gems and jewellery products. Of the eight products mentioned above HS Code-7117(Imitation jewellery) has the minimum variation (21%) with respect to its mean (1.83) and is thus more reliable for export than HS Code

7114 (Articles of goldsmith's/silversmith's wares&pts) and 7115 (Articles of precious metal or metal clad with precious metal, nes) that has a higher variation (116% and 134% respectively) with respect to their considerably higher mean (1.66 and 1.88 respectively). Syn/reconstr prec/semi-prec stones, not strg/mounted/set (7104) have RCA mean equal to 1 which means it holds no specialization or no disadvantage for export of the commodity. Commodities Diamonds, not mounted or set (7102) and Precious & semi-precious stone, not strug (7103), Base metals clad with silver, nfw than semi-manufactured (7107), Platinum, unwrought or in semimanufactured forms (7110), Base metals, silver or gold, clad w plat, nfw than semi- manufactured (7111), Waste & scrap of precious metal (7112) shows export comparative disadvantage for Chinese economy.

RSCA Index

Table 4.6 shows indices for Laursen's (1998) RSCA. China holds revealed symmetric comparative advantage in five commodities which are Pearls, nat or cult, etc (7101), Dust&powder of precious or semi-precious stones (7105), Silver,unwrht or in semi-manuf. Form (7106), Articles of natural or cultured pearls, prec/semi prec stone (7116) and Imitation Jewellery (7117). Table 4.6 values confirms the values of RCA of Table 4.5, by showing advantage in exporting commodities with HS-Codes 7101, 7105, 7106, 7116, 7117. Articles of goldsmiths/silversmith's wares&pts (7114), Articles of precious metal or metal clad with precious metal, nes (7115) showed Revealed Comparative Advantage in Table 4.5, but, the RSCA table gives a clear picture by dealing with the asymmetry of the RCA and gives the value of export competitiveness in the range of -1 and +1. The five commodities though holding an Export Advantage, their mean - RSCA value is on the lower side (below 0.5), which suggests that the Gems & Jewellery industry does not have relevant importance for Chinese Economy. Commodities Diamonds, not mounted or set (7102) and Precious & semi-precious stone, not strug (7103), Base metals clad with silver, nfw than semi-manufactured (7107), Platinum, unwrought or in semimanufactured forms (7110), Base metals, silver or gold, clad w plat, nfw than semi-manufactured (7111) have shown export disadvantage continuously for the study period it can be inferred that these commodities do not have significant export advantage for China.

RTA Index:

Table 4.7 shows the indices for Vollrath (1989) alternative specification for RCA, i.e., Relative Trade Advantage (RTA). China holds relative trade advantage in nine commodities which are Pearls, nat or cult, etc (7101), Dust&powder of precious or semi-precious stones (7105), Silver,unwrht or in semi-manuf. Form (7106), Waste & scrap of precious metal (7112), Articles of jewellery parts thereof (7113), Articles of goldsmith's/silversmith's

wares&pts (7114), Articles of precious metal or metal clad with precious metal, nes (7115), Articles of natural or cultured pearls, prec/semi prec stone (7116) and Imitation Jewellery (7117). All the other nine commodities have their mean RTA value <0 , thus showing a Relative Trade Disadvantage in the Gems & Jewellery sector. Five of the commodities - Diamonds, not mounted or set (7102) and Precious & semi-precious stones, not strug (7103), Syn/reconstr prec/semi-prec stones, not strg/mounted/set (7104), Base metals clad with silver, nfw than semi-manufactured (7107), Base metals, silver or gold, clad w plat, nfw than semi-manufactured (7111) have Relative Trade Disadvantage continuously over the study period. This says that all the five commodities are not advantageous for China as they have shown signs of repeated trade disadvantage. From 4.1.3(b), China has shown Export Advantage in five commodities (Table 4.6), but the RTA index shows that it holds trade advantage in nine commodities, this suggests the four commodities Waste & scrap of precious metal (7112), Articles of jewellery parts thereof (7113), Articles of goldsmith's/silversmith's wares&pts (7114), Articles of precious metal or metal clad with precious metal, nes (7115) are exported by China but not to such an extent that they could hold Revealed Symmetric Comparative Advantage. These commodities are also imported in less quantity, thus, the four products are of negligible importance because of their lower export and lower import which gives a scope of further research to find the importance of these commodities in global level.

Conclusion & Recommendation

This study gives a broad overview and analyses the Export Competitiveness of the Gems & Jewellery Industry for India and its immediate competitors China by considering Balassa's (1965), Laursen's (1998) and Vollrath (1989) indices at 2 & 4-digit level of HS Classification for a time period of 2001-2013. This study gives a clear view about the country that hold higher Export Comparative Advantage as well as Trade Advantage. The study also talks in detail about the commodities in which a country holds Export Advantage, the commodities in which it hold Export Disadvantage and also the commodities which could be focussed upon in order to increase Export Advantage.

Studying all the three indices it can be inferred that India holds a higher Revealed Comparative Advantage with a variation of 30% (Table 4.1). India holds Export Comparative Advantage in six commodities with the highest in Diamonds, not mounted or set (7102) that have a minimum variation of 2% (Table 4.3). India holds Relative Trade Advantage in ten commodities. The increase in the number of commodities from six to ten commodities having Relative Trade Advantage (RTA) suggests a contradictory result which states that India exports the four commodities (Pearls, nat or cult, etc (7101), Base metals, silver or gold, clad w plat, nfw than semi-manufactured (7111), Waste & scrap of precious metal (7112) and Imitation Jewellery (7117)) but the four commodities doesn't hold an Export Advantage in the RSCA Table 4.3 as such because of high domestic consumption as Indians are fascinated with Gems & Jewellery from an ancient times. Not just lesser exports the commodities are also imported to a lesser content, thereby, making these commodities of negligible importance for Indian trade.

The lower Revealed Comparative Advantage is shown by China and holds maximum variation of 24%. China holds Export Advantage in only five commodities. Though these five commodities show Export Advantage, their mean - RSCA value is on the lower side (below 0.5), which suggests that the Gems & Jewellery industry does not have relevant

importance for Chinese Economy. Also commodities such as Diamonds, not mounted or set (7102) and Precious & semi-precious stone, not strug (7103), Base metals clad with silver, nfw than semi-manufactured (7107), Platinum, unwrought or in semi-manufactured forms (7110), Base metals, silver or gold, clad w plat, nfw than semi-manufactured (7111) have shown export disadvantage continuously for the study period, which makes them of insignificant importance for Chinese economy. China holds an overall Relative Trade Advantage with a higher and positive mean of 1.66. It shows Trade Advantage in nine commodities, which says that the commodities Waste & scrap of precious metal (7112), Articles of jewellery parts thereof (7113), Articles of goldsmith's/silversmith's wares&pts (7114), Articles of precious metal or metal clad with precious metal, nes (7115) are exported by China but not to such an extent that they could hold Revealed Symmetric Comparative Advantage. These commodities are also imported in minimal quantity, thus, the four products are of negligible importance because of their lower export and lower import.

The commodities, in which the countries hold Relative Trade Advantage, but not Revealed Comparative Advantage, can be studied further to find out their importance in global level. If these commodities have global demand, then they could be exported by the countries and thus hold Revealed Comparative Advantage in those commodities. This gives a scope of future research to find the importance of these commodities in global level and to further export them.

Appendix

**Table 4.1 Revealed Comparative Advantage for
Gems & Jewellery (71) in India & China**

Years/Indices	India			China		
	RCA	RTA	RSCA	RCA	RTA	RSCA
2001	8.57	-1.31	0.79	2.93	1.92	0.49
2002	9.00	0.39	0.80	2.88	1.75	0.48
2003	9.16	0.31	0.80	2.83	1.53	0.48
2004	8.47	-0.74	0.79	2.99	1.61	0.50
2005	8.15	-0.22	0.78	2.79	1.55	0.47
2006	6.41	0.37	0.73	2.80	1.50	0.47
2007	6.15	0.06	0.72	2.62	1.24	0.45
2008	4.79	-0.20	0.65	2.02	0.95	0.34
2009	7.01	0.54	0.75	1.61	0.62	0.23
2010	5.07	-2.23	0.67	1.96	0.81	0.32
2011	4.73	-1.80	0.65	2.60	1.56	0.44
2012	4.11	-1.20	0.61	4.33	3.47	0.63
2013	3.84	-1.07	0.59	4.38	3.04	0.63
Mean	6.57	-0.55	0.72	2.83	1.66	0.46
CV	0.30	-1.67	0.11	0.28	0.49	0.24

Source: Author's calculations based on HS data from the International Trade Centre's (ITC) database.

Table 4.2 – Revealed Comparative Advantage (RCA-India)

Code	Product label	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	CV
'7101	Pearls, nat or cult. etc	0.18	0.29	0.37	1.38	0.15	0.13	0.20	0.13	0.24	0.04	0.07	0.23	11.08	1.11	2.71
'7102	Diamonds, not mounted or set	17.27	16.27	17.67	14.55	14.08	11.96	12.71	11.97	13.91	12.41	12.55	10.47	10.98	13.60	0.17
'7103	Precious & semi-precious stone, not strug,	16.05	13.53	13.65	11.85	10.97	8.66	7.84	6.38	5.82	3.79	3.76	4.12	5.30	8.60	0.49
'7104	Syn/reconstr prec/semi-prec stones, not strg./mounted/set	1.15	0.70	0.78	0.92	0.62	0.42	0.35	2.20	1.91	1.00	1.04	1.53	1.44	1.08	0.52
'7105	Dust&powder of precious or semi-precious stones	6.79	8.01	2.45	6.03	6.68	2.36	3.88	1.03	27.28	6.50	9.12	2.52	6.80	6.88	0.96
'7106	Silver, unwrought or in semi-manuf. form	0.00	0.01	0.02	0.11	0.05	0.18	0.04	0.09	0.46	0.07	0.03	0.08	0.08	0.09	1.29
'7107	Base metals clad with silver, nfw than semi-manufactured	0.01	0.11	0.01	0.02	0.07	0.01	0.03	0.06	0.00	0.03	1.73	0.19	0.03	0.18	2.64
'7108	Gold unwrought or in semi-manuf forms	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.12	0.05	0.12	0.05	0.12	0.01	0.50	0.06
'7109	Base metals or silver, clad with gold, nfw than semi-manufactured	0.01	0.37	0.67	0.01	0.05	0.12	0.00	0.05	0.08	0.01	0.03	0.02	0.06	0.11	1.70
'7110	Platinum, unwrought or in semi-manufactured forms	0.12	0.06	0.05	0.05	0.07	0.02	0.02	0.03	4.23	0.01	0.01	0.01	0.01	0.02	3.19
'7111	Base metals, silver or gold, clad w/plat, nfw than semi-manufactured	1.09	0.04	0.21	0.02	0.99	2.68	0.09	0.08	0.00	0.87	0.00	0.00	0.00	0.47	1.67
'7112	Waste & scrap of precious metal	0.02	0.01	0.07	0.09	0.49	1.01	1.16	0.64	0.47	0.93	0.94	1.24	1.01	0.62	0.74
'7113	Articles of jewellery&parts thereof	8.02	8.08	9.08	11.72	10.10	11.73	10.43	7.70	14.70	9.06	10.46	10.65	5.64	9.80	0.23
'7114	Articles of goldsmith's/silversmith's wares&pts	0.94	2.32	2.01	6.20	7.04	19.37	3.66	1.48	45.21	14.43	10.25	21.75	1.92	10.51	1.19
'7115	Articles of precious metal or metal clad with precious metal, nes	0.43	0.05	0.06	0.04	0.02	0.10	0.19	0.13	0.02	0.08	0.07	0.01	0.02	0.09	1.23
'7116	Articles of natural or cultured pearls, prec/semi prec stones	0.06	1.85	2.16	1.38	0.39	0.04	0.01	0.05	0.20	0.28	0.15	0.17	0.20	0.53	1.40
'7117	imitation jewellery	2.23	2.20	2.19	19.16	11.90	2.61	2.21	2.54	2.50	1.96	3.40	3.68	2.79	4.57	1.12
'7118	Coin	0.03	0.00	0.01	0.02	0.01	2.17	0.28	0.43	7.16	27.85	0.29	0.43	0.01	2.98	2.60

Source: Author's calculations based on HS data from the International Trade Centre's (ITC) database

Table 4.3 – Revealed Symmetric Comparative Advantage (RSCA-India)

Code	Product label	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	CV
'7101	Pearls, nat or cult, etc	-0.70	-0.55	-0.46	0.16	-0.74	-0.77	-0.67	-0.77	-0.62	-0.93	-0.87	-0.62	-0.83	-0.52	-0.94
'7102	Diamonds, not mounted or set	0.89	0.88	0.89	0.87	0.87	0.85	0.85	0.85	0.87	0.85	0.85	0.83	0.83	0.86	0.02
'7103	Precious & semi-precious stone, not strug,	0.88	0.86	0.86	0.84	0.83	0.79	0.77	0.73	0.71	0.58	0.58	0.61	0.68	0.75	0.15
'7104	Syn/reconstr prec/semi-prec stones, not strg/mounted/set	0.07	-0.17	-0.13	-0.04	-0.24	-0.41	-0.48	0.37	0.31	0.00	0.02	0.21	0.18	-0.02	-11.08
'7105	Dust&powder of precious or semi-precious stones	0.74	0.78	0.42	0.72	0.74	0.41	0.59	0.01	0.93	0.73	0.80	0.43	0.74	0.62	0.39
'7106	Silver,unwrought or in semi-manuf. form	-0.99	-0.99	-0.96	-0.80	-0.91	-0.70	-0.93	-0.83	-0.37	-0.87	-0.94	-0.85	-0.86	-0.85	-0.19
'7107	Base metals clad with silver, nfwt than semi-manufactured	-0.97	-0.80	-0.98	-0.96	-0.87	-0.99	-0.94	-0.89	-1.00	-0.94	0.27	-0.68	-0.94	-0.82	-0.41
'7108	Gold unwrought or in semi-manuf forms	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-0.99	-1.00	-0.79	-0.90	-0.78	-0.98	-0.33	-0.91	-0.21
'7109	Base metals or silver, clad with gold, nfwt than semi-manufactured	-0.98	-0.46	-0.20	-0.99	-0.90	-0.79	-1.00	-0.90	-0.84	-0.99	-0.94	-0.97	-0.88	-0.83	-0.28
'7110	Platinum, unwrought or in semi-manufactured forms	-0.78	-0.89	-0.91	-0.90	-0.87	-0.96	-0.88	-0.95	0.62	-0.97	-0.98	-0.98	-0.97	-0.80	-0.54
'7111	Base metals, silver or gold, clad w plat, nfwt than semi-manufactured	0.04	-0.92	-0.65	-0.96	-0.01	0.46	-0.84	-0.85	-1.00	-0.07	-1.00	-1.00	-1.00	-0.60	-0.85
'7112	Waste & scrap of precious metal	-0.96	-0.98	-0.86	-0.83	-0.34	0.01	0.07	-0.22	-0.36	-0.04	-0.03	0.11	0.00	-0.34	-1.23
'7113	Articles of jewellery&parts thereof	0.78	0.78	0.60	0.84	0.82	0.84	0.83	0.77	0.87	0.80	0.83	0.83	0.70	0.81	0.05
'7114	Articles of goldsmith's/silversmith's wares&pts	-0.03	0.40	0.34	0.72	0.75	0.90	0.57	0.20	0.96	0.87	0.82	0.91	0.32	0.59	0.54
'7115	Articles of precious metal or metal clad with precious metal, nes	-0.40	-0.91	-0.89	-0.92	-0.96	-0.83	-0.68	-0.76	-0.96	-0.86	-0.87	-0.98	-0.97	-0.85	-0.19
'7116	Articles of natural or cultured pearls, prec/semi prec stones	-0.89	0.30	0.37	0.16	-0.44	-0.92	-0.97	-0.91	-0.67	-0.57	-0.74	-0.71	-0.67	-0.51	-0.93
'7117	imitation jewellery	0.36	0.37	0.37	0.90	0.84	0.45	0.38	0.44	0.43	0.32	0.54	0.57	0.47	0.50	0.36
'7118	Coin	-0.94	-0.99	-0.99	-0.96	-0.97	0.37	-0.57	-0.39	0.75	0.93	-0.55	-0.40	-0.99	-0.44	-1.57

Source: Author's calculations based on HS data from the International Trade Centre's (ITC) database.

Table 4.4 - Relative Trade Advantage (RTA-India)

Code	Product label	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	CV
'7101	Pearls, nat or cult, etc	-0.24	-0.11	-0.11	1.09	-0.10	-0.08	-0.05	-0.06	-0.08	-0.22	-0.17	-0.20	1.22	0.07	7.19
'7102	Diamonds, not mounted or set	5.49	4.57	6.24	3.79	4.87	5.70	6.76	5.79	4.71	1.96	3.74	4.11	4.37	4.78	0.26
'7103	Precious & semi-precious stone, not strug,	10.35	9.81	8.65	7.94	6.91	5.24	4.05	3.92	2.55	0.83	1.18	0.66	2.56	4.97	0.69
'7104	Syn/reconstr prec/semi-prec stones, not strg./mounted/set	0.43	-0.12	-0.95	-0.46	-0.65	-0.59	-1.12	0.86	0.20	-0.36	0.23	-0.04	-1.84	-0.34	-2.11
'7105	Dust&powder of precious or semi-precious stones	4.84	6.37	0.91	4.47	5.31	1.21	2.80	0.20	26.15	5.58	8.05	0.74	5.17	5.52	1.21
'7106	Silver, unwrought or in semi-manuf. form	-18.33	-12.74	-10.80	-6.66	-9.28	-0.61	-5.42	-6.37	-1.41	-3.28	-5.22	-2.33	-6.26	-6.82	-0.73
'7107	Base metals clad with silver, nfw than semi-manufactured	-4.49	0.11	-0.35	-0.02	-0.10	-0.09	0.03	0.05	0.00	0.03	1.64	0.11	-0.35	-0.26	-5.16
'7108	Gold unwrought or in semi-manuf forms	-25.94	-14.51	-16.17	-19.97	-19.16	-18.23	-16.18	-9.97	-13.80	-14.14	-11.72	-9.43	-7.26	-15.11	-0.33
'7109	Base metals or silver, clad with gold, nfw than semi-manufactured	0.01	-0.44	0.48	-0.18	0.03	0.05	-0.79	-0.19	-0.77	-0.07	0.00	0.00	-7.72	-0.74	-2.88
'7110	Platinum, unwrought or in semi-manufactured forms	-0.02	-0.08	-0.13	-0.12	-0.10	-0.11	-0.09	-0.65	-0.69	-0.22	-0.22	-0.29	-0.27	-0.23	-0.92
'7111	Base metals, silver or gold, clad w/plat, nfw than semi-manufactured	1.02	0.01	0.17	0.02	0.99	2.57	0.09	0.07	-0.01	0.87	0.00	-0.01	-0.01	0.45	1.70
'7112	Waste & scrap of precious metal	0.01	0.01	0.07	0.08	0.48	1.01	1.13	0.62	0.45	0.92	0.93	1.23	1.00	0.61	0.75
'7113	Articles of jewellery&parts thereof	7.74	7.80	8.68	11.24	9.73	11.12	9.85	7.44	14.09	8.83	10.04	8.35	5.27	9.25	0.24
'7114	Articles of goldsmith's/silversmith's wares&pts	0.49	1.81	1.54	5.96	6.14	19.09	3.15	0.44	44.84	14.27	10.02	21.61	1.84	10.09	1.25
'7115	Articles of precious metal or metal clad with precious metal, nes	0.37	-0.20	-0.56	-0.45	-0.11	-0.11	-0.10	-0.06	-0.04	0.05	-0.04	-0.15	-0.03	-0.11	-2.04
'7116	Articles of natural or cultured pearls, prec/semi prec stones	0.05	1.83	2.14	1.38	0.38	0.03	0.00	0.04	0.17	0.27	0.14	0.15	0.19	0.52	1.43
'7117	Imitation jewellery	2.19	2.17	2.13	19.11	11.82	2.55	2.12	2.46	2.41	1.86	3.28	3.56	2.65	4.49	1.14
'7118	Coin	-22.07	-25.90	-10.36	-0.78	0.01	2.13	-0.02	0.37	7.12	27.75	0.29	0.43	0.01	-1.62	-8.10

Source: Author's calculations based on HS data from the International Trade Centre's (ITC) database.

Table 4.5 – Revealed Comparative Advantage (RCA-China)

Code	Product label	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	CV
'7101	Pearls, nat or cult, etc	0.41	0.52	1.03	1.44	1.37	1.22	1.46	1.43	1.63	1.74	1.78	1.72	0.79	1.27	0.36
'7102	Diamonds, not mounted or set	0.30	0.26	0.25	0.25	0.22	0.25	0.22	0.22	0.19	0.16	0.19	0.19	0.16	0.22	0.19
'7103	Precious & semi-precious stone,not strug,	0.20	0.18	0.19	0.20	0.15	0.08	0.05	0.03	0.04	0.02	0.04	0.24	0.66	0.16	1.06
'7104	Syn/reconstr prec/semi-prec stones, not strg/mounted/set	1.29	1.23	1.19	1.39	1.11	0.87	0.75	0.72	0.73	0.76	0.86	0.76	1.36	1.00	0.26
'7105	Dust&powder of precious or semi-precious stones	1.07	1.19	0.77	1.32	1.36	2.01	2.40	2.74	1.66	2.58	2.55	2.84	2.71	1.94	0.38
'7106	Silver,unwrought or in semi-manuf. form	1.14	1.56	1.80	2.10	2.16	1.87	1.77	1.50	1.33	0.46	0.33	0.24	0.35	1.28	0.55
'7107	Base metals clad with silver, nfw than semi-manufactured	0.02	0.00	0.04	0.05	0.12	0.21	0.24	0.28	0.17	0.19	0.16	0.11	0.14	0.13	0.65
'7110	Platinum, unwrought or in semimanufactured forms	0.12	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.02	0.02	0.03	1.34
'7111	Base metals, silver or gold, clad w plat, nfw than semi-manufactured	0.05	0.01	0.02	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.47
'7112	Waste & scrap of precious metal	0.03	0.07	0.04	0.01	0.01	0.02	0.01	0.02	0.02	0.04	0.01	0.02	0.03	0.03	0.68
'7113	Articles of jewellery&parts thereof	1.41	1.18	0.99	0.94	0.83	0.67	0.62	0.56	0.52	0.77	1.16	1.90	2.34	1.07	0.51
'7114	Articles of goldsmith's/silversmith's wares&pts	1.21	0.43	0.22	0.16	0.71	1.05	1.31	0.19	0.05	3.90	5.19	1.66	5.50	1.66	1.16
'7115	Articles of precious metal or metal clad with precious metal, nes	0.23	0.36	0.31	0.48	0.75	0.81	0.60	0.43	0.54	1.21	5.76	6.90	6.09	1.88	1.34
'7116	Articles of natural or cultured pearls, prec/semi prec stones	2.76	2.55	1.35	1.13	0.85	0.90	0.61	0.93	1.46	1.36	4.12	2.50	3.18	1.82	0.59
'7117	Imitation jewellery	2.36	2.17	1.97	1.59	1.87	1.99	1.98	1.92	2.04	2.19	1.17	1.09	1.48	1.83	0.21
'7118	Coin	2.46	0.39	0.39	0.24	0.07	0.11	0.10	0.15	0.01	0.01	0.00	0.01	0.00	0.30	2.19

Source: Author's calculations based on HS data from the International Trade Centre's (ITC) database. HS Code 7108 and 7109 not considered for trade by Chinese Economy.

Table 4.6 – Revealed Symmetric Comparative Advantage (RSCA-China)

Code	Product	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	CV
'7101	Pearls, nat or cult, etc	-0.41	-0.31	0.01	0.18	0.16	0.10	0.19	0.18	0.24	0.27	0.28	0.26	-0.12	0.08	2.87
'7102	Diamonds, not mounted or set	-0.54	-0.59	-0.60	-0.59	-0.64	-0.60	-0.64	-0.65	-0.69	-0.73	-0.68	-0.68	-0.73	-0.64	-0.09
'7103	Precious & semi-precious stone, not strug,	-0.67	-0.70	-0.68	-0.66	-0.74	-0.66	-0.90	-0.94	-0.93	-0.96	-0.92	-0.61	-0.21	0.75	-0.27
'7104	Syn/reconstr prec/semi-prec stones, not strug/mounted/set	0.13	0.10	0.09	0.16	0.05	-0.07	-0.14	-0.16	-0.16	-0.14	-0.07	-0.13	0.15	-0.01	-8.90
'7109	Dust&powder of precious or semi-precious stones	0.03	0.09	-0.13	0.14	0.15	0.33	0.41	0.47	0.25	0.44	0.44	0.48	0.46	0.27	0.73
'7108	Silver, unwright or in semi-manuf. form	0.06	0.22	0.29	0.36	0.37	0.30	0.28	0.20	0.14	-0.37	-0.50	-0.62	-0.48	0.02	19.29
'7107	Base metals clad with silver, nfw than semi-manufactured	-0.95	-1.00	-0.92	-0.90	-0.78	-0.65	-0.61	-0.56	-0.71	-0.69	-0.73	-0.81	-0.75	-0.77	-0.18
'7110	Platinum, unwrought or in semimanufactured forms	-0.78	-0.81	-0.91	-0.99	-0.99	-0.99	-1.00	-0.99	-0.99	-0.97	-0.93	-0.96	-0.96	-0.94	-0.08
'7111	Base metals, silver or gold, clad w plat, nfw than semi-	-0.91	-0.99	-0.96	-0.97	-0.99	-0.99	-0.98	-0.99	-1.00	-1.00	-1.00	-1.00	-1.00	-0.98	-0.03
'7112	Waste & scrap of precious metal	-0.94	-0.87	-0.92	-0.98	-0.99	-0.97	-0.98	-0.96	-0.96	-0.92	-0.98	-0.96	-0.95	-0.95	-0.03
'7113	Articles of jewellery&parts thereof	0.17	0.08	-0.01	-0.03	-0.09	-0.20	-0.24	-0.28	-0.31	-0.13	0.08	0.31	0.40	-0.02	-11.76
'7114	Articles of goldsmith's/silversmith's wares&pts	0.09	-0.40	-0.64	-0.73	-0.17	0.03	0.14	-0.68	-0.91	0.59	0.68	0.25	0.69	-0.08	-6.83
'7119	Articles of precious metal or metal clad with precious metal,	-0.62	-0.47	-0.53	-0.36	-0.14	-0.11	-0.25	-0.40	-0.30	0.10	0.70	0.75	0.72	-0.07	-7.02
'7118	Articles of natural or cultured pearls, prec/semi prec stones	0.47	0.44	0.15	0.06	-0.08	-0.05	-0.24	-0.04	0.19	0.15	0.61	0.43	0.52	0.20	1.35
'7117	Imitation jewellery	0.40	0.37	0.33	0.23	0.30	0.33	0.33	0.32	0.34	0.37	0.08	0.04	0.19	0.28	0.40
'7118	Coin	0.42	-0.44	-0.44	-0.62	-0.87	-0.80	-0.82	-0.74	-0.98	-0.99	-1.00	-0.98	-1.00	-0.71	-0.56

Source: Author's calculations based on HS data from the International Trade Centre's (ITC) database. HS Code 7108 and 7109 not considered for trade by Chinese Economy.

Table 4.7 - Relative Trade Advantage (RTA-China)

Code	Product label	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	CV
'7101	Pearls, nat or cult, etc	0.21	0.36	0.82	1.24	1.16	0.97	1.19	1.16	1.34	1.43	1.49	1.37	0.62	1.03	0.40
'7102	Diamonds, not mounted or set	-0.10	-0.13	-0.13	-0.13	-0.14	-0.21	-0.24	-0.22	-0.22	-0.22	-0.24	-0.28	-0.33	-0.20	-0.34
'7103	Precious & semi-precious stone, not strng,	-0.35	-0.37	-0.38	-0.42	-0.52	-0.48	-0.48	-0.45	-0.91	-1.29	-2.32	-1.21	-2.53	-0.90	-0.83
'7104	Syn/reconstr prec/semi-prec stones, not strng/mounted/set	-0.53	-0.62	-0.84	-0.47	-0.66	-0.85	-0.56	-0.51	-0.50	-0.19	-0.31	-0.99	-0.65	-0.59	-0.37
'7105	Dust&powder of precious or semi-precious stones	1.00	1.13	0.62	1.13	1.14	1.79	1.98	2.35	1.38	2.32	2.28	2.44	2.29	1.68	0.38
'7106	Silver, unwright or in semi-manuf. form	0.78	1.21	1.43	1.77	1.79	1.42	1.26	0.84	0.81	0.07	0.09	0.03	0.19	0.90	0.72
'7107	Base metals clad with silver, nfw than semi-manufactured	-1.68	-1.77	-2.55	-2.56	-2.26	-1.60	-1.16	-0.86	-0.76	-0.40	-0.45	-0.64	-0.93	-1.36	-0.57
'7110	Platinum, unwrought or in semimanufactured forms	0.02	-0.06	-0.39	-0.61	-0.86	-0.81	-1.02	-1.06	-1.24	-1.59	-1.46	-1.52	-1.69	-0.94	-0.60
'7111	Base metals, silver or gold, clad w plat, nfw than semi-manufactured	-0.04	-0.56	-0.78	-0.97	-0.44	-0.35	-0.41	-0.21	-0.30	-0.20	-0.22	-0.26	-0.34	-0.39	-0.65
'7112	Waste & scrap of precious metal	0.03	0.07	0.04	0.01	0.01	0.01	0.01	0.02	0.01	0.04	0.01	0.02	0.03	0.02	0.75
'7113	Articles of jewellery&parts thereof	1.33	1.13	0.95	0.89	0.77	0.61	0.55	0.48	0.46	0.71	1.10	1.84	2.29	1.01	0.54
'7114	Articles of goldsmith's/silversmith's wares&pts	1.15	0.41	0.21	0.15	0.70	1.04	1.30	1.16	0.04	3.90	5.19	1.66	5.49	1.65	1.17
'7115	Articles of precious metal or metal clad with precious metal, nes	-0.67	-0.20	-0.46	-0.82	-0.62	-0.49	-1.04	-0.87	-0.43	0.36	5.02	6.00	5.90	0.90	3.05
'7116	Articles of natural or cultured pearls, prec/semi precstones	2.67	2.42	1.29	1.06	0.79	0.85	0.56	0.88	1.41	1.32	4.01	1.36	1.38	1.54	0.62
'7117	Imitation jewellery	2.08	1.95	1.82	1.47	1.70	1.85	1.84	1.75	1.86	2.03	0.98	0.94	1.32	1.66	0.23
'7118	Coin	2.35	0.14	-2.64	0.16	-0.39	-0.06	-0.04	0.07	-0.03	-0.02	-0.16	-0.04	-0.01	-0.05	-20.45

Source: Author's calculations based on HS data from the International Trade Centre's (ITC) database. HS Code 7108 and 7109 not considered for trade by Chinese Economy.

References

- Balance, R., Forstner, H., & Murray, T. (1987). Consistency Tests of Alternative Measures of Comparative Advantage. *Review of Economics and Statistics*, 157-161.
- Balassa, B. (1965). Trade Liberalisation and 'Revealed' Comparative Advantage. The Manchester School, 99-123.
- Balassa, B. (1977). 'Revealed' Comparative Advantage Revisited: An analysis of relative export shares of the Industrial Countries, 1953-1971. *Manchester School of Economic and Social Studies*, Vol. 45, 327-344.
- Balassa, B. (1986). Comparative Advantage in Manufactured Goods: A reappraisal. *Review of Economics*, Vol. 68, no. 2, 315-319.
- D.Greenaway, & C.Milner. (1993). Trade and industrial policy in developing countries: A manual of policy analysis. The Macmillan Press, esp. Part IV Evaluating Comparative Advantage, 181-208.
- Dalum, B., Laursen, K., & Villumsen, G. (1998). Structural change in OECD export specialization patterns: de-specialization and stickiness. *International Review of Applied Economics*, Vol. 12, 447-467.
- Exim Bank. (2010, January 1). Indian Gems and jewellery: A Sector Study. Occasional Paper no. 138, Quest Publications, Mumbai, www.eximbankindia.com/op138pdf. Retrieved March 7, 2015, from Exim Bank India: www.eximbankindia.com
- Findlay, R. (1987). Comparative Advantage. In: John Eatwell, Murray Milgate, Peter Newman and Robert Harry Inglis Palgrave (Eds.), *The New Palgrave: A Dictionary of Economics*, Volume 1: A - D, London: Macmillan, 514-517.
- Garga, P. K. (2002). Export of India's Major Products-Problems and Prospects. New Century Publications, New Delhi, 88-115.
- GJEPC. (2013, January 1). About Us: GJEPC. Retrieved March 7, 2015, from Gems & Jewellery Export Promotion Council: <http://www.gjepc.org>
- GJEPC. (2015, February 1). Home Page. Retrieved March 7, 2015, from Gems and Jewellery Export Promotion Council: <http://www.gjepc.org/>
- IBEF. (2013, May 1). Industry: Gems and Jewellery. Retrieved March 5, 2015, from India Brand Equity Foundation: <http://www.ibef.org>

- IBEF. (2015, February 1). Industry: Gems and Jewellery. Retrieved March 7, 2015, from India Brand Equity Foundation: <http://www.ibef.org>
- Laursen, K. (1998, December 3). Revealed Comparative Advantage and The Alternatives as Measures of International Specialisation. Retrieved February 20, 2015, from DRUID: <http://www3.druid.dk/wp/19980030.pdf>
- MacDougall, G. (1951-1952). British and American Exports: A Study Suggested by the Theory of Comparative Costs part I and part II. *Economic Journal*, 697-724 and 487-521.
- Mukherjee, I. (2008). Gem and Jewellery Industry: Global and Indian Scenario. The Icfai University Press, Hyderabad, 6-7.
- Research and Markets. (2011). Indian gems and Jewellery Market-future prospect. *Research and Markets*, 10.
- Sundaram S., I. (2001). Gems and Jewellery Industry-Vast Export Potential. Facts For You, 13-14. SEEPZ. (2013, January 1). About SEEPZ. Retrieved March 8, 2015, from SEEPZ - Special Economic Zone: <http://www.seepz.org>
- Vipul Shah. (2012). Gems & Jewellery Export Promotion Council. Indo-Russian Jewellery Summit (pp. -). Mumbai: GJEPC.
- Vollrath, T. (1989). Competitiveness and Protection in World Agriculture; Agricultural Information Bulletin No. 567. Economic Research Service (US Department of Agriculture: Washington DC).
- Vollrath, T. L. (1991). A Theoretical Evaluation of Alternative Trade Intensity Measures of Revealed Comparative Advantage. *Weltwirtschaftliches Archiv*, 130, 265-279.
- Widodo, T. (2009). Comparative Advantage: theory, empirical measures and case studies. *Review of Economic and Business Studies*. Issue 4, 57-82.
- WITS. (2013, January 1). Trade Stats : India Stone and Glass Imports by Country and Region. Retrieved March 7, 2015, from World Integrated Trade Solution: <http://wits.worldbank.org>
- WITS. (2013, January 1). Trade Stats: China Trade Summary. Retrieved March 7, 2015, from World Integrated Trade Solution: <http://wits.worldbank.org>
- WITS. (2013, January 1). Trade Stats: India Trade Summary 2013 Data. Retrieved March 8, 2015, from World Integrated Trade Solution: <http://wits.worldbank.org>
- WITS. (2013, January 1). Trade Stats: United States Trade Summary. Retrieved March 7, 2015, from World Integrated Trade Solution: <http://wits.worldbank.org>
- WITS. (2013, January 1). Trade Stats: China Stone and Glass Export Product Share (%). Retrieved March 7, 2015, from World Integrated Trade Solution: <http://wits.worldbank.org>

WITS. (2013, January 1). Trade Stats: India Stone and Glass Export Product Share (%). Retrieved March 7,

2015, from World Integrated Trade Solution: <http://wits.worldbank.org> WITS. (2013, January 1). Trade Stats: UK Stone and Glass Export Product Share (%). Retrieved March 7, 2015, from World Integrated Trade Solution: <http://wits.worldbank.org>

WITS. (2013, January 1). Trade Stats: United States Stone and Glass Export Product Share (%). Retrieved March 7, 2015, from World Integrated Trade Solution: <http://wits.worldbank.org>

WITS. (2013, January 1). Trade Stats: United States Trade Summary. Retrieved March 7, 2015, from World Integrated Trade Solution: <http://wits.worldbank.org>

World Bank. (2010-2014, January 1). Data: Indicators- GDP growth (annual %). Retrieved March 7, 2015, from The World Bank Group: <http://data.worldbank.org>

CAN A BIG BAZAAR ALSO SELL AN ARMANI: WILL THE RETAIL REPOSITIONING BY MARUTI SUZUKI WORK

Ashish Kumar

“We have realized that the expectation in the segment is completely different. We need to pamper the customers in the segment... We have a strong base of 15 million customers; we wanted to offer them a different experience if they look to graduate from Maruti cars.”

R.S. Kalsi, Executive Director (Marketing and Sales),
Maruti Suzuki India Limited

Maruti Suzuki India Limited (MSIL) is India's leading passenger car manufacturer, which manufactured its 15 millionth car in May 2015, the first Indian auto manufacturer to achieve the mark. Since inception in 1981, Maruti Suzuki, the brand name of which is at times used as synonyms to “car” in India, has been a dominant player in the Indian automobile industry. But despite being the first-automobile for most of the Indian families, Maruti is not the first choice while upgrading the vehicle for the India customers. Over the years, MSIL has failed to capture the success, it enjoyed in entry level segment, in the premium segment market despite repeated launches. Keeping this in mind, MSIL decided to use the launch of a new premium vehicle to create a new retail repositioning for Maruti brand. In July 2015, MSIL decided to establish new-age retail showrooms “NEXA” and launched a premium hatchback “S-Cross” only through NEXA showrooms. But, once branded as “Common Man's Car” in India, will Maruti be able to establish itself as a premium automobile brand is yet to be seen?

Maruti Suzuki India Limited

The Government of India founded Maruti Udyog Limited (MUL) in February 1981 and later on in 1982, the government entered into a joint venture with Suzuki Motor Corporation of Japan, to create Maruti Suzuki India Limited (MSIL). With its headquarter in New Delhi, MSIL, Indian subsidiary of Suzuki Motor Corporation, enjoyed a lot of success in the Indian passenger vehicle market and became the largest passenger car company in the country, a position it enjoyed for nearly three decades with nearly 50% share of the Indian domestic car market. In 2000s, the Indian government decided to exit from MSIL using a public issue in 2003 and later on selling its complete share to financial corporations in 2007.

MSIL is the only Indian company to have crossed the 10 million sales mark since its commencement in 1983 and has four production facilities, three locations at Gurgaon and one at Manesar, both in the northern Indian state of Haryana. With ultra-modern facilities in the

Ashish Kumar,
Deputy Director,
Amity Business School, Amity University Rajasthan, Jaipur
akumar3@jpr.amity.edu

plants, the company achieved a production output of 1.5 million units per year, against the installed capacity of 1.26 million units. Buoyant with the growing Indian passenger vehicle market in India, it planned to expand its capacity to 1.75 million by 2013 and announced an investment plan of INR 1.7 billion for a new diesel engine plant in Gurgaon with an annual capacity of 300,000 units, taking the gross capacity to 600,000 units by 2014.

MSIL: The Initial Years

With first Maruti 800 rolling out on December 14, 1983 of the Gurgaon factory, the journey of Maruti began in India. During 1980s and 1990s, Maruti became the most popular car in India due to improved design and smaller looks as compared to the passenger vehicles of the time – Ambassador and Premier Padmini. It enjoyed the first position for more than two decades. By 2011, MSIL had more than 15 brands and 150 variants in the market and had sold more than 10 million cars, the only company to have reached this milestone in India. The sales of the company grew from INR 147.92 billion in 2006-07 to INR 426.49.05 billion in 2013-14, posting the growth of 135 per cent in six years. In March 2014, the company had 1,310 sales outlets and more than 3,000 service outlets across 1,400 cities. MSIL planned to expand its service network aggressively and also had over 1,000 Maruti Mobile Support (MMS) vehicles operating across the country, providing door step service to nearly 32,000 customers every month.

MSIL had also created a strong presence in Europe, Asia, Latin America, Africa and Oceania. Although the overall export was on a decline since 2011-12, due to non-tariff barriers and political unrest in certain major European markets, MSIL increased the share of non-European markets to more than 70% in 2014-15 to hedge against the decline in European market. To cater to the pre-owned car market, the company had a separate division called Maruti True Value. As of March 2014, True Value has a strong pan-India presence with 600 outlets. It had a transparent and fair evaluation system in which the pre-owned cars were evaluated by engineers, genuine Maruti spares were used and the vehicle was certified after thorough checks. The buyers were provided with all facilities under one roof, including car financing. The efforts MSIL put in True Value initiative were reaping results as in 2013-14, the share of trade-ins in new vehicle sales went up to 27 per cent and the sales of pre-owned cars grew 17 per cent, which helped the dealer to maintain financial viability in a tough market. To focus on the corporate clients, MSIL initiated the end-to-end solutions (N2N), which was a fleet management division that provided complete fleet solutions such as leasing, maintenance, convenience, services and re-marketing of the vehicle.

MSIL was rated as number one in the prestigious JD Power Customer Satisfaction Index for 15 consecutive years up to 2014. In 2013-14, MSIL had a market share of more than 42%, up from 38% in 2011-12 and was the leader in Indian passenger vehicle industry.

In 2013-14, MSIL sold 1.16 million vehicles, up from 1.13 million in 2011-12, the revenues increased to INR 426.45 billion, up from INR 347.06 billion 2011-12. MSIL also increased the profit after tax to INR 27.83 billion in 2013-14, up from INR 16.35 billion in 2011-12.

MSIL: Marketing Strategies

To cater to the fragmented Indian passenger vehicle market, MSIL created an extensive product line. The range of model was designed to provide transport solutions for every need in the passenger vehicle segment and to make MSIL rule the Indian roads. Over the years,

MSIL introduced seven hatchbacks — Maruti 800, Alto, Zen/Estilo, A-Star, Ritz, Swift and WagonR to capture the entry level consumers. In the sedan segment, the company had three models — Dzire, SX4 and the imported Kizashi. To capture the multi-utility vehicle (MUV) segment, MSIL introduced four models — Eeco, Ertiga, Gypsy and Omni. In the high-end market, The Grand Vitara was launched as the sports utility vehicle (SUV). Despite having most of the launches as successful, MSIL also had its share of failures like Maruti 1000, Maruti Esteem, Versa, and Baleno which all lost steam either immediately or after some time after their launch and were later taken off the market. On innovation front, MSIL became the first Indian company to introduce factory installed CNG (compressed natural gas) kits in five models as an environmentally friendly substitute for gasoline or diesel.

On the price positioning, the price range for MSIL's models started as low as INR 200,000 for Maruti 800 to INR 2,460,000 for the luxurious Grand Vitara. The pricing strategy helped MSIL to achieve the leadership position in the Indian domestic market, which was primarily an economy-focused and price-sensitive market. To differentiate, MSIL positioned its product offerings as fuel-efficient and easy-on-the-pocket cars, thus catering to the need for economy in both running costs and price. This positioning became the central theme for all marketing campaigns. The prominent tag lines across various print and television advertisements were “*petrol khatam hi nahi hota*” (petrol doesn't get over) and “*kitna deti hai*” (how much mileage does it give?). These campaigns hit the target with the ever-growing and vibrant 300 million saving-oriented middle class in India and for nearly 25 years, the bulk of the company's sales came from the Maruti 800 and Alto, which were priced around INR 200,000.

As the disposable income of Indian consumers began the upward movement, a sizeable segment of the market started graduating to the higher needs of comfort with economy. This is when MSIL started to feel the heat of competitive forces. Despite being the first choice at entry-level, MSIL couldn't sell cars with price tags above INR 800,000 until 2006, as the Indian market related MSIL with economy and not with technology or style, the critical success factors needed for a higher price tag. At this stage, the over-positioning of “economic value” made it difficult for the company to enter the luxury segment, and the attempts to launch products above INR 500,000 faltered thrice - Baleno (1999), Grand Vitara (2003) and Kizashi (2011), couldn't survive and were taken off the market some time after their launches.

To gain the advantage of budget announcements, in 2006, MSIL started gaining hold in the entry level sedan segment with its models SX4 and Dzire. The company reduced the length of the Dzire model to less than 4,000 centimetres (cm) resulting in saved taxes, as taxes for cars less than 4,000 cm were 10 per cent and above that were 22 per cent. But despite having this advantage, MSIL failed to ride on the success of these models for long and again starting to lose the share to competitors.

The biggest strength of MSIL's over the years had been its wide service network across the country. The company had 1,310 sales outlets and more than 3,000 service outlets across 1,400 cities apart from 600 True Value outlets. It also had over 1,000 Maruti Mobile Support (MMS) vehicles operating across the country. The company used this intensive distribution and services network as its differentiating tool to edge out competitors. This was duly reflected many times in its promotional campaigns. All MSIL's advertising campaigns focused on themes such as economy and the wide network of sales and distribution, besides being pivoted around family, the core unit of Indian society. One of its prominent campaigns,

"India comes home in a Maruti Suzuki" aptly reflected the bonding it had developed with Indian families over the years. The commercial endeavored to build associations between the company and various occasions such as festivals and traditions involving families. To cater to the growing rural market in India, MSIL had launched various initiatives. Aggressive marketing campaigns such as "Mera Sapna Meri Maruti" (My dream, My Maruti) were planned across India. The company tied up with local bodies in rural areas to sponsor local events and festivals as an integral part of its promotional drive. Apart from this, MSIL also recruited and groomed nearly 8,000 local youth as resident dealer sales executives (RDSE) to offer comfort and assurance to first time buyers in small towns and rural areas. In 2013-14, MSIL sold vehicles in nearly 93,500 villages, against a target of 100,000 villages. In 2013-14, the sales in rural markets were up 16 per cent compared to 2012-13, and accounted for 32 per cent of MSIL's annual sales.

Retail Repositioning – The Road Ahead

In 2014-2015, MSIL decided to refocus on the premium segment and decided to change the strategy as the previous launches had already failed. The company decided to establish a chain of retail outlets branded "Nexa" to exclusively cater to the sale of premium products starting with the exclusive launch of cross-over utility vehicle S-Cross. MSIL had set a target of selling two million units annually by 2020 and expected that Nexa stores will contribute a significant amount to its sales targets. MSIL planned to open 100 dealerships across 30 cities under the Nexa brand by the end of the 2015-2016. To differentiate Nexa stores from existing retail outlets, MSIL recruited around 700 personnel from hospitality, aviation and financial services sectors to offer a differentiated luxury car buying experience for its 'discerning customers'. The key reason behind the retail repositioning is in past when MSIL tried to sell the premium and Value-for-money segment vehicles under one roof, the experience delivered to the high priced consumer was not different from the small car buyers. *As the launch of S-Cross hits the market, it is yet to be seen whether MSIL, best known for value offerings, be able to make the shift?*

BOOK REVIEW : MANAGE LIVE AND LEAD: AN INSPIRATIONAL GUIDE FOR MANAGERS, STUDENTS AND CITIZENS BY VENKAT CHANGAVALLI, PUBLISHED BY SAMPARK, 174 PAGES.

Dr. Supriya Biswas

Interestingly the book has opened with endorsements by prominent industry luminaries followed by author's prologue summarizing the chapters. The central theme of the book is "if you manage better, you will be able to live better and get an opportunity to lead. If you lead better, you will others manage better leading to an upward spiral contributing to country's growth". The prologue has also included author's experience summary as a top level executive in organizations, namely, Symrise (a German company and a major producer of flavors and fragrances with sales of €2.903 billion in 2016) and EMRI (Emergency Management and Research Institute).

Comprising of three major parts under the headings of "Manage", "Live" and "Lead", and finally with an epilogue where the author presents his story of building successful brand, the book meticulously deals with significant touch points of professional world in a candid manner.

Starting with the discussion on 'Manage', the author has progressed with two key areas of professional world, namely, people management and customer management. The scope of people management has covered the following dimensions, for example, hiring the right people, focus on right people and retaining the talent. While explaining the objective of hiring right people, he has referred to the story of baby camel and its mother with the morale that skill, knowledge and experience are useful only if you are in the right place. While examining the aspects of focusing on the right people, he has stressed on the importance of clarifying the roles and responsibilities, empowering employees, compensation process as well. The author has also emphasized on the importance of difficult people as he feels the difficult people are easy to change.

In the section of customer management, marketing strategy, selling, service marketing and customer service, have been elaborated. While discussing marketing strategy, the strategic considerations of Symrise have been referred. In this context, the author has described ACE Matrix which is Attribute Categorization and Evaluation Matrix where the column captures the level of energy that the attribute generates and rows denote the sentiment that the attribute provokes in the current customer. The art of selling, service management and key account management have been explained using interesting anecdotes. While talking about customer service, the author mentions that functional value denigrates over time and emotional value expands over time. Nevertheless for high value services, in the mindscape of present day customers, it is true that the functional value may not expand, but neither does it

Dr. Supriya Biswas

Professor

NSHM Knowledge Campus; Kolkata

E-mail : supriya.biswas@nshm.com

seem to denigrate. The customer carries it without being overtly conscious of its weight. This is perhaps the reality experienced by most of the high value service providers.

The second part of the book talks about "Live" explained in the following three major sections, namely, Values, Attitudes, Self Management skills and Inter-personal skills. The opening lines of "Value" seem to be very interesting as it states – character is powerful and the true test is what one thinks or does when no one is watching and whether one remains the same under pressure.

Regarding "Attitude", his views are very relevant, like the simple way to wriggle out of any difficult situation or tackle any impending crisis is to adopt a positive approach. It is important to adopt a positive way of thinking especially during trying times. Being happy is an attitude – I feel this being a very valuable quote in the book. Apart from these, the author has been generous in sharing his wealth of wisdom in treating the areas like self confidence where health and well being, finance, relationships and career play important roles.

He has also referred a term or behavioral syndrome called 'Excusitis' that is excuses given by the unsuccessful people. Successful people do not resort to any excuses. Excusitis comes in a variety of forms, but the common ones are namely, health excusitis, age excusitis, intelligence excusitis and luck excusitis. However, the author did not spare the bad habits and practices of star performers. The star performers are generally known for their mood swings and tantrums but can take the leader for a ride. They tend to ignore their faults which in later life become the cause of their downfall.

The subjects of stress and anger management have been treated elaborately. Many a time, we are stuck in situations we do not like. It is not easy to walk away. But the least we can do is to make best out of it. If you start to act so, you will be a happier person and not a burning matchstick.

The concluding section of the book is "Lead". This section starts with the summary of key skills of a leader, namely, Strategic thinking, innovation, execution, team building, coaching, collaboration, delegation, emotional intelligence, leading change and motivation. The author has spared no pains to deal with each point with his vast knowledge. It is a fact that visionary leaders are path creators who are willing to act and execute with small piece of vision. They are not fazed by paucity of resources. They go against popular wisdom and they have respect of intuition. The transformation of leadership perspectives from level 1 to level 5 passing through specific stretches of time has been discussed. Early stage of leadership envisaged highly capable individual whereas in the present day context the importance lying on the executive type of leadership enriched in enduring greatness through a paradoxical blend of personal humility and professional will. The most interesting part of this chapter was 'Lead in Crisis' when at the height of EMRI's success, a scandal broke out at Satyam Computer Services and Ramlinga Raju was the chairman of EMRI. Instead of resigning, the author took up the challenge to take over the reins of the organization and resolved to stand up and fight for EMRI cause.

The views on team building have been of immense importance, particularly, the advice on tackling the problems like, frustration, grumbling, dishonesty, unproductive meetings or to be more precise unproductive hours in the meeting, no role clarity etc which are very common

in a team seem to be quite useful.

Apart from being a general readers' delight, the contents of the book provide guidance to managing life and business that is popularly known as work-life balance. The examples cited are very relevant and connected to the central idea although there are some stories which are common and known to many. In fact the book abounds in stories each trailing with a moral. It is a management oriented text both for relaxation and knowledge. For business school students, the book should be treated as an important reference to their curriculum, particularly for those aspiring to grow as successful HR or marketing professional.

ABOUT THE JOURNAL AND CALL FOR PAPERS

Mission

NSHM Business School is publishing NSHM Journal of Management Research and Applications (NJMRA). The objective of NJMRA is to present current research and ideas in the field of management in a lucid format accessible to both the academia and industry. The journal is also expected to act as a platform for industry professionals to share their best practices.

NJMRA invites original research-based papers, articles, book reviews and management cases on topics of current concern in the areas of management, development economics and related social sciences. It looks for conceptually sound and methodologically robust articles that harness and extend knowledge in all domains of management through empirical work or by building on existing concepts, and draws out the implication of the research for practitioners. The section on practices on the other hand is expected to extend the knowledge of the academic researchers in this discipline. Consequently, we expect the articles to have the potential to advance both management theory and practice through the bilateral exchange and synthesis of ideas and information.

Frequency

The journal will be published twice a year in the months of June and December.

Content Mix

In view of the broad spectrum of readership, NJMRA invites contributions to any of the various sections of the journal:

- Research Papers
- Conceptual
- Empirical
- Practice
- Perspectives
- Book Reviews
- Case Studies

Here are some of the suggested themes on which contributions are welcome

General Management, Corporate Strategy, Policy and Governance; Finance, Control and Corporate Laws; Public Policy; IT and Systems; Marketing; OB/HR; Technology, Production and Operations; Economics, Sociology and other Social Sciences

Articles that consist of literature surveys or discussion on practices in industry and reviews of books that have been published within one to two years of the receipt of the review will be also considered. Industrialists, CEOs, entrepreneurs and corporate professionals may submit articles on management practices which enable them to share their experiences in exploring new and under researched areas in management.

Review Process

NJMRA is a refereed journal. All manuscripts submitted for publication would be screened by the editorial board for relevance to the journal. They would then be put through 'double blind review process' that may normally take four months. Manuscripts accepted for publication will have to be edited to suit the Journal's format. The Editorial Board of NJMRA reserves the right to shortlist a paper/article for a particular section of the Journal depending on its suitability. Wherever possible, reviewer's feedback will be provided.

Manuscripts are judged on the basis of the following criteria:

Overall contribution of the paper to the field of management, originality of the content, adequacy of the literature review, conceptual or methodological rigor, logical and technical soundness, organization of the content, writing quality, implication of the research references.

After the review process is completed, the author(s) will be informed about the decision of the reviewers by email.

Guidelines for Contributors

Articles/Papers should not exceed 10,000 words, and book review should be neatly typed MS Word document on one-side of A4 size paper with double spacing in Times New Roman, 12-point font size justified text.

Cover page should provide the title of the paper, name(s), and designation and contact details of the author, along with a short biography of the author within 100 words.

An abstract (150-200 words) should be included in the beginning of the paper followed by key words. The number of keywords should be restricted to a maximum of ten.

All sections and subsections are to be numbered. Example: 1, 1.1, 1.2, etc

All tables, charts, graphs, diagrams should be in black and white and not in color. The images should be of high resolution and in black and white only. Number and complexity of such exhibits should be as low as possible. All charts and graphs should be drawn legibly

and figures should be indicated in suitable and appropriate scale. All charts, graphs, images, etc. should also be numbered and referred to in the body of the text.

Footnotes to the text should be avoided. If required, they should be numbered consecutively and presented as endnotes.

The primary heading should be in capitalized form (Uppercase), and boldface. The sub-headings should be in title-case capitalization (first letter of each word in capital) and in bold

Citations of other works should be limited to the name of the author and year of publication. Short quotations should be included in the text within parentheses, while quotations of more than 30 words should be placed in a separate paragraph indented from the main body of the text.

References should be indicated in the text by giving the title of author(s), with the year of publication in parentheses. All references should be alphabetically listed at the end of the paper. Format of all citations should as far as possible follow the American Psychological Association (APA) referencing style. For example:

A. For Articles in Journals

Mintzbert, H. and Lampel, J. (1999): Reflecting on the strategy Process, Sloan Management Review, Vol.40, No 3, pp.21-30.

Singh, G., Kala, S.P. and Singh, S. (2006): Impact of Advertising Attitude on Consumer, Amity Business Review, Vol. 7, No 2, pp. 60-63.

United States Agency for International Development (USAID), (2008): Private Health Insurance in India: Promise & Reality.

World Bank Report (1994): Averting Old Age Crisis

B. For Articles in Books (Edited Volumes)

Manimala, M.J. (1999): Entrepreneurial Politics and Strategies – The Innovator's Choice, New Delhi: Sage Publications, pp. 114-123.

C. For Working Papers and Thesis

Balasubramanian, N. (1997): Equity Returns in India: An Empirical Study of the Experience of the Nineties, Working Paper No. 5/1997, UTI-IIMB, Centre for Markets Education & Research, Indian Institute of Management, Bangalore.

D. For Websites

Gerwig, K. and Carlson, R. (2001): AT&T & Comcast: Dividing Their Business to Conquer, Current Analysis,
<http://www.currentanalysis.com/CurrentComplete/Eventview.cfm?reportid=6744&nav=1>

10. When citing sources within text, only the author surname(s) and year should be mentioned as illustrated below.

If the market exists it would help the victims to get assured good quality treatment at low cost through either risk-pooling (Arrow, 1963) or income-pooling (Nyman, 2003).

One unique thing of private health insurance (PHI) in Canada is the coverage of prescription drugs outside of hospitals that is not provided by public coverage (Glied, 2001; Colombo and Tapay, 2004).

This regulation needed well defined and informative materials regarding the future prospect of the insurance products at the time of sale, claims procedure, proper functioning of policyholders services and so on (USAID, 2008).

11. In case of more than two authors only the first author surname must appear followed by et al as shown below :

This indicates the presence of substitution relation in richer countries between private and public provisioning of healthcare related services; if quality of public service is not up to the mark relatively more affluent people may opt out (Sekhri et al. 2005).

12. If a contribution is accepted for the sections – Conceptual/Empirical Research

Papers/Practice/Case Studies then the author will be paid an honorarium of Rs. 3,500. For accepted Book Reviews and articles appearing in "Perspectives" the honorarium will be Rs.1000. Authors will also receive a complimentary copy of the issue of NJMRA in which the article is published.

Correspondence

In the covering letter accompanying the manuscript, the author(s) should certify that the manuscript has neither been published anywhere nor is it being considered elsewhere for publication. Copyright of all accepted papers for publication and use in any form/format will vest with NSHM Business School. Each author of the paper will have to sign the Pre-Publication Author Disclosure Form and the scanned soft copy of this form with signature of the author(s) duly attested by the head of their institute(s) has to be submitted to the editor through email.

For submission of articles papers, files can be attached in the email addressed to the Editor, NJMRA and sent to editor.njmra@nshm.com. In the subject column of the mail, indicate "Article for the Journal".

The manuscript should be sent on the following address:

The Editor
NSHM Journal of Management Research and Applications,
NSHM Business School
NSHM Knowledge Campus
124(60) B.L.Saha Road, Kolkata - 700 053
West Bengal, India
<http://www.nshm.com/quicklinks/njmra.php>

NSHM Journal of Management Research and Applications Pre-Publication Disclosure Form

Author and co-authors of the article must fill-in and sign a copy of this form and submit it to the office of NSHM Journal of Management Research and Applications before an accepted article will be scheduled for publication.

I/We _____, (Author (s) name), the copyright owner(s) of
the Article _____

do hereby authorize you to publish the above said article in NSHM Journal of Management Research and Applications

I/WE FURTHER STATE THAT:

1) The Article is my/our original contribution and has not been plagiarized from any source/individual. It does not infringe on the rights of others and does not contain any libelous or unlawful statements and all references have been duly acknowledged at the appropriate places.

2) The work has been submitted only to NSHM Journal of Management Research and Applications and it has not been previously published or submitted elsewhere for publication in a refereed or copyrighted publication.

I/We hereby authorize you to edit, alter, modify and make changes in the Article to make it suitable for publication in NSHM Journal of Management Research and Applications.

I/We hereby assign all the copyrights relating to the said Article to NSHM Journal of Management Research and Applications KOLKATA.

I/We have not assigned any kind of rights of the above said Article to any other person/institute/publication.

I/We agree to indemnify NSHM Journal of Management Research and Applications, Kolkata against any claim or action alleging facts which, if true, constitute a breach of any of the foregoing warranties.

Name: First Author

Name: Second Author

Signature:

Signature:

Date:

Date:

Subscription Form

I wish to subscribe/renew my subscription to "NSHM Journal of Management Research and Applications for 1/2/3 year(s). A bank draft / cheque bearing no. _____ for ₹/US\$ _____ drawn in favour of "H.C. Garg Charitable Trust" towards subscription is enclosed.

Name _____

Address _____

City _____ Pin _____

Country _____

Phone _____ Fax _____

E-mail _____

Signature with date _____

Please send the amount by DD/Crossed account payee cheque favouring "H. C. Garg Charitable Trust" for timely receipt of Journal.

For outstation cheques, Please add ₹ 30 towards bank charges.

SUBSCRIPTION RATES			
Category	1 year	2 year	3 year
Indian in ₹			
Institutions	300	550	800
Individuals	200	350	500
Alumni	150	225	350
Students	150	225	350
Foreign in US\$			
Air-Mail	75	125	175
Sea Mail	60	100	135

Please send your subscription from along with your DD/Crossed Account Payee Cheque to :

Mrs. Supriya Banerjee,

NSHM Knowledge Campus - Knowledge Group
124(60) B. L. Saha Road,
Kolkata 700053, West Bengal, India