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Non-Performing Assets of Indian Commercial Banks: A Critical Evaluation

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Abstract

The issue of Non-Performing Assets (NPA) in the banks is discussed. The magnitude and trend in NPA are studied for the 5 year period 2008-13, using a suitable classification of the banks. A critical evaluation of the reasons and a few recommendations are made which have positive practical implications.

Key words and Phrases: Asset Quality, Capital Adequacy Ratio, Development Envelopment Analysis, Doubtful Assets, Financial Intermediation, Financial Sector Reforms, Interest Rate Spread, Loan Servicing and Collateral, Loss Assets, Non-Performing Assets, Private Sector Banks, Public Sector Banks, Sub-standard Assets.

Introduction

The last decade has seen many positive developments in the Indian Banking sector. The policy makers who comprise the Reserve Bank of India (RBI), Ministry of Finance and related government and financial sector regulatory entities have made several notable efforts to improve regulation in the sector which compares favorably with banking sector in the region on metrics like growth and profitability. However NPAs remain a cause for worry. This study evaluates and compares the NPA of public and private sector banks during the recent years and makes some suggestions for NPA management.

The banking system in India is significantly different from that in other Asian countries because of the country specific geography socio-economic characteristics. India has a large population and land-size, a diverse culture and extreme disparities in income which are marked among its regions. There are high levels of illiteracy in a large segment of its population but, at the same time, the country has a large reservoir of managerial and technologically advanced talents. About 35 percent of the population resides in metro and urban areas and the rest is spread over several semi-urban and rural centers.

These features have left the Indian banking sector with strengths and weaknesses. A big challenge facing Indian banks is how to attain operational efficiency suitable for modern financial intermediation under the current ownership structure. While it has been relatively easy for the public sector banks to recapitalize given the increase in NPAs, as their Government dominated

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ownership structure has reduced the conflicts of interest that private banks would face.

After the merger of New Bank of India with Punjab National Bank during the era of Financial Sector Reforms, the number of Public Sector Banks (PSBs) became 27. This is reflected in the market valuation. While the bonus for this change lies mainly with bank managements, an enabling policy and regulatory framework will also be critical to their success. Comparisons of bank performance based on financial ratios suffers from the limitation that ratios might overstate performance because of inaccurate reporting of NPAs or because NPAs trend to be lower in the initial years in the case of newly established banks.

The NPAs are considered to be an important parameter to judge the performance and financial health of banks. The level of NPA is one of the drivers of financial stability and growth of the banking sector. This paper adopts an empirical approach to the analysis of NPAs of public and private banks in India.

Overview of Literature

Bloem & Gorter (2001) suggested that a more or less predictable level of non-performing loans, though it may vary slightly from year to year, is caused by an inevitably large number of wrong economic decisions by individuals and plain bad luck, inclement weather and sudden price changes for certain products. Under such circumstances, the holders of loan can make an allowance for a normal share of non-performance in the form of bad loan provision or they may spread the risk by taking out insurance. Enterprises may well be able to pass a large portion of these costs to customers in the form of higher prices.

Koeva (2003) in his study on the performance of Indian Banks during Financial Liberalization, gives new empirical evidence on the impact of financial liberalization on the performance of Indian commercial Banks. The analysis focuses on examining the determinants of bank intermediation costs and profitability during the liberalization period. His empirical results suggest that ownership type has a significant effect on some performance indicators and that ownership type has a significant effect during financial liberalization. This has been associated with lower intermediation costs and profitability of the Indian banks.

Ghosh (2003) empirically examined non-performing loans of Indian public sector banks in terms of various indicators such as asset size, credit growth, macroeconomic condition and operating efficiency. Mohan (2004) points out that although public sector banks have recorded improvement in profitability efficiency in terms of intermediation costs and asset quality in the year 1990 they continue to have higher interest rate spread but at the same time earn lower rates of return, reflecting higher operating costs. Consequently asset quality is weaker so that loan loss provisions continue to be higher. This suggests that there is enough scope for enhancing the asset quality of banks in general. Public sector banks in particular need to further reduce the operating costs.

Kumar (2004) in his article on an evaluation of the financial performance of Indian private sector banks noted that Private sector banks play an important role in development of Indian economy. After liberalization, the banking industry underwent major changes in the public and the private sectors as per the recommendations of Narashimam Committee. The Indian banking industry was dominated by public sector banks earlier. But the situation has changed now: new generation banks which use technology and professional management have gained a reasonable position in the banking industry.

Vradi & Nagarjuna (2006) in their study on measurement of efficiency of banks in India concluded that in the modern world, performance of banking is very important to stabilize the economy. In order to see the efficiency of Indian banks, they examined the force indicator profitability, productivity, assets quality and financial management for all banks in India for the period 1999–2003. For measuring efficiency of banks they adopted Development Envelopment Analysis and found that public sector banks are more efficient than other banks in India.

Singh (2006) has suggested the alternative measures for improvement in the banking industry. His study evaluated the performance of banks against benchmark and ratio analysis was employed as the tools. The analysis of the NPA observed the decline in post liberalization period. The study insisted that the ideal level benchmark is less than 1 per cent; the segments curtail the growth rate of NPAs and followed certain policy like counterparts who had not only arrested the NPA but reduced them.

Singh (2007) examines the performance trends of the Indian commercial banks for the period 1997-98 to 2004-05. His broad empirical findings are indicative in many ways. First, the increasing average annual trends in technical efficiency for all ownership groups indicate an affirmative geniture about the effect of the reforms process on the performance of the Indian banking sector. Second, the higher cost efficiency accrual of private banks over nationalized banks indicate that the nationalized banks, though old, do not reflect their learning experience in their cost minimizing behavior due to inefficiency factors arising from government ownership . This finding also highlights the possible stronger disciplining role played by the capital market indicating a strong link between market for corporate control and efficiency of private enterprise assumed by properly right hypothesis. And finally, that concerning the scale elasticity behavior, the technology and market based results differ significantly.

Mitra & Ravi (2008) have noted that a stable and efficient banking sector is an essential precondition to improve the economic level of a country. They have evaluated the efficiency of 50 Indian banks. The efficiency can be analyzed and quantified for every evaluated unit. The aim of this paper was to estimate and compare efficiency of the banking sector in India. The analysis was to verify the hypothesis whether the banking sector fulfills its intermediation function to compete with the global players. The results are adequately insightful to the financial policy planner and identify priority area for different banks to improve the performance.

Vohra and Dhamu (2012) emphatically point out that the NPAs have a direct impact on profitability, liquidity and equity of the banks. The authors observe that NPA of Indian banks are relatively very high by global standards. Thus, they recommend restricting of lending operations only to secured advances with adequate collateral securities. They also list a few common reasons for an asset turning NPA, considering economy, industry, borrower and lender sides separately.

Objectives of the study

- To study the performance of commercial banks in India
- To examine the asset quality for commercial banks in India
- To find out the health of various categories of loan assets that contribute of NPA
- To suggest some measures for NPA management

Non-performing Loan: A Theoretical Perspective

A credit transaction involves a contract between two parties, the borrower and the creditor, subject to a mutual agreement on the *terms of credit*. These are defined over five critical financial parameters: *amount of credit, interest rate, maturity period, frequency of loan servicing and collateral*. Optimizing decision pertaining to the terms of credit could be different for the borrower and the banks. As such, the mutual agreement between the borrower and the bank may not necessarily imply an optimal configuration for both. At this juncture, a distinction between a defaulter and a non performing loan account is in order. A *default* entails violation of the loan contract or the agreed terms of the contract, while a non performing loan entails that the borrower does not renege format of the loan contract but fails to comply with the repayment schedule due to evolving unfavorable conditions. However the perspective of corporate finance is that both the cases of defaulter and non performer imply similar financial implications viz. financial loss to the banks. Moreover, in the Indian context, regulatory and supervisory process does not focus on such a distinction between the defaulter and non-performer as far as prudential norms are concerned. The Non-performing Loan (NPL) is defined as an amount past due, taking into account either no payment of interest or principal, or both. The most important reason for default could be a mismatch between borrowers' and creditors' terms of credit.

Nationalized Banks

In July 1969, 14 banks each with a deposit base of Rs.50 crores or more were nationalized. Again in the year 1980, six more private banks were nationalized bringing up the total number to twenty. These Banks were: Bank of Baroda, Punjab National Bank, Bank of India, Canara Bank, Central Bank of India, Indian Bank, Indian Overseas Bank, Syndicate Bank, UCO Bank, Allahabad Bank, United Bank of India, Oriental Bank of Commerce, Corporation Bank, Vijaya Bank, Dena Bank, Bank of Maharashtra, Andhra Bank, Punjab & Sind Bank and, State Bank of India with its subsidiaries.

Public Sector Banks

Public sector banks are the ones in which the government has a major holding. They are divided into two groups: nationalized banks and State Bank of India and its associates. Among them, there are 19 nationalized banks and 8 State Bank of India associates. Public Sector Banks dominate commercial banking in India.

Private Sector Banks

Private sector banks came into existence to supplement the functions of public sector banks and serve the needs of the economy better. As the public sector banks were merely in the hands of the government without any incentive to make profits and improve the financial health. The main difference is that public sector banks follow the RBI rules strictly but Private sector banks could have some changes, after the approval by the RBI. Private sector banks are the banks which are controlled by the private lenders with the approval from the RBI, their interest rates being marginally higher than the rates in public sector banks

Non-performing assets

Bank Assets are classified into two categories:

Performing assets are those assets on which interest or installments are correctly paid by a customer within stipulated time. **Non-performing assets** are those assets on which interest or installments have been due for a period of more than 180 days.

- An asset becomes Non-performing when it ceases to generate income for a bank
- It is also a credit facility in respect of which the interest and / or installments of principal have remained 'past due' for a specified period of "two quarters".

Presence of NPAs indicates adversely asset quality of the balance sheet and hence future income generating prospects. This also requires provisioning which has implications with respect to capital adequacy. Declining capital adequacy adversely affects shareholder value and restricts the ability of the bank/institution to access the capital market for additional equity to enhance capital adequacy. If this happens for a large number of financial intermediaries, then, given that there are a large number of inter-bank transactions, there could be a *domino* kind of effect. Low capital adequacy will also severely affect the growth prospects of banks and institutions. The level of NPA acts as an indicator showing the bankers' credit risks and efficiency of allocation of resources, because it is a loan which is due or outstanding from the customer beyond a stipulated time. In other words, NPA is a result of asset-liability mismatch. Accordingly some treat NPA as an asset because it indicates the amount receivable from the defaulters.

NPAs, also called non-performing loans, are loans, made by a bank or finance company, on which repayments or interest is not being made on time. Loan is an asset for a bank as the interest payments and the repayments of the principal create a stream of cash flows. It is from the interest payments that a bank makes its profits. Banks usually treat assets as non-performing if they are not serviced for some time: if payments are late by a stipulated period, a loan is classified as *past due*.

NPA and Banks

Non-performing Asset is called so because it is an "Asset" which does not bring substantial income to its owner and is just dormant. Basically, it has something that should work but which does not. The RBI has issued guidelines to banks for classification of assets into four categories. Out of these four, the following three are considered as NPAs: (a) Sub-standard Assets, (b) Doubtful Assets and (c) Loss Assets.

Sub-standard Assets: Originally a sub-standard asset was one, which was classified as NPA for a period not exceeding two years. With effect from 31 March 2001, a sub-standard asset was one, which remained NPA for a period not exceeding 18 months. With effect from 31 March 2005 the norms have been further tightened and a sub-standard asset is one, which has remained NPA for a period not exceeding 12 months.

Doubtful Assets: Initially a doubtful asset was one, which remained NPA for a period exceeding two years. With effect from 31 March 2001, an asset is to be classified as doubtful, if it had remained NPA for a period exceeding 18 months. With effect from March 31, 2005, the norms have been further tightened, and an asset would be classified as doubtful if it remained in the sub-standard category for 12 months.

Loss Assets: A loss asset is one where loss has been identified by the bank or internal or external auditors or the RBI inspection but the amount has not been written off wholly. In other words, such an asset is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted although there may be some salvage or recovery value.

Standard Assets: The fourth category of loan accounts, which is not included in NPA category, is Standard Assets (one which does not pose any problems and which does not carry normal risk attached to the business).

Distinction between Gross and Net NPA

Gross NPA is the amount outstanding in the borrowers' account, in books of the bank other than the interest which has been recorded and not debited to the borrowers' account. **Net NPA** is the amount of gross NPAs less (1) interest debited to borrowers' and not recovered and not recognized as income and kept in interest suspense, (2) amount of provisions held in respect of NPAs and (3) amount of claim received and not appropriated.

The RBI defines Net NPA as equal to Gross NPA – (Balance in Interest Suspense account + DICGC/ECGC claims received and held pending adjustment + Part payment received and kept in suspense account + Total provisions held). This is generally reported as a ratio to net advances.

Gross NPA Ratio = (Gross NPA / Gross Advances) * 100
Net NPA Ratio = (Net NPA / Net Advances) * 100

The ideal value of net NPA is 0 and for practical purpose a benchmark is taken as 1 per cent. Thus, the values of net NPA which are less than one may be considered as satisfactory and the values exceeding 1 percent indicate a situation calling for improvement by reducing the NPA.

Trends in NPA

Next, we examine the gross and net NPA of Indian banks for the five year period 2008-2013. The relevant figures are given in table form and also displayed diagrammatically.

Table 1: Group-wise Gross NPA of Indian Commercial Banks from 2008-13

Banks	2008-09	2009-10	2010-11	2011-12	2012-13
Public Sector Banks	2.10	2.28	2.32	3.17	3.84
Private Sector Banks	3.25	2.97	2.45	2.08	1.91
Foreign Banks	4.30	4.26	2.54	2.68	2.97

Figure 1: Group-wise Gross NPA of Indian Commercial Banks

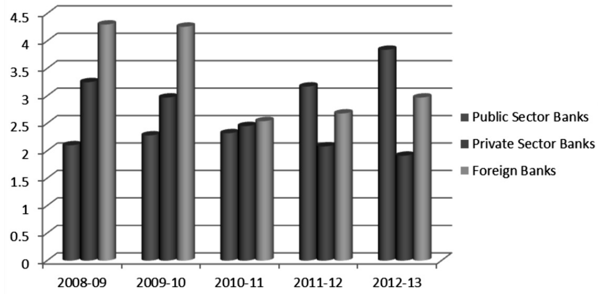


Table 2: Grass NPA of all scheduled Commercial Banks 2008-13

Year	2008-09	2009-10	2010-11	2011-12	2012-13
Gross NPA %	2.31	2.50	2.35	2.94	3.23

Figure 2: Grass NPA of all scheduled Commercial Banks

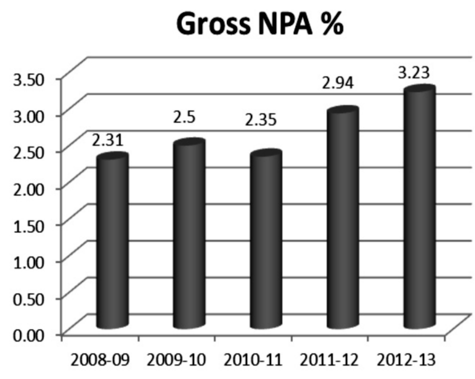


Table 3: Net NPA of Commercial Banks: 2008-13

Banks	2008-09	2009-10	2010-11	2011-12	2012-13
Nationalised	0.94	1.10	1.09	1.53	2.02
Old Private Sector	1.40	1.09	0.56	0.42	0.45
New Private	0.90	0.82	0.53	0.58	0.77
Foreign	1.81	1.82	0.67	0.61	1.01

Figure 3: Net NPA of Commercial Banks

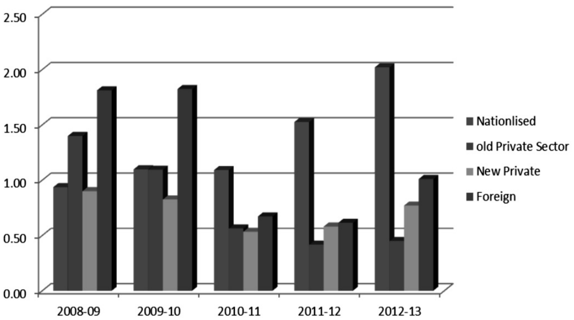


Table 4: Group-wise sub-standard Loan Assets of Banks: 2008-13

Banks	2008-09	2009-10	2010-11	2011-12	2012-13
Public Sector Banks	0.93	1.1	1.1	1.7	1.89
Private Sector Banks	2.02	1.48	0.6	0.58	0.56

Figure 4: Group-wise sub-standard Loan Assets of Banks

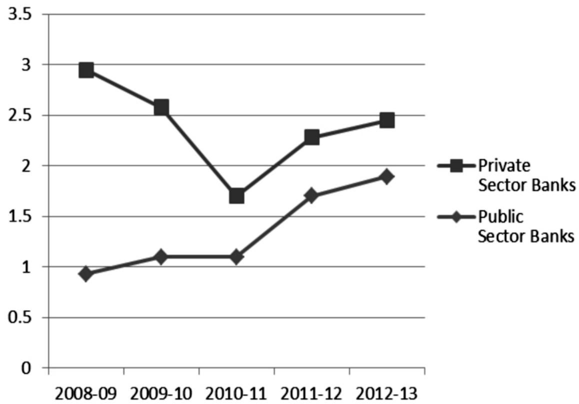


Table 5: Group-wise doubtful Loan Assets of Banks: 2008-13

Banks	2008-09	2009-10	2010-11	2011-12	2012-13
Public Sector Banks	0.99	0.98	1.04	1.33	1.81
Private Sector Banks	0.96	1.12	1.46	1.17	1.06

Figure 5: Group-wise doubtful Loan Assets of Banks

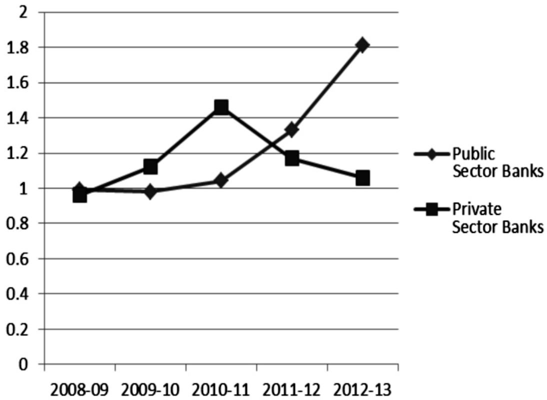
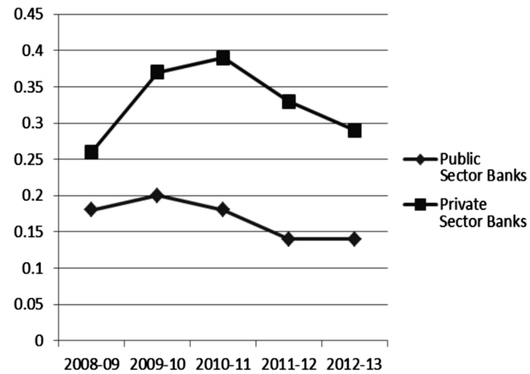


Table 6: Group-wise Loss Assets of Banks: 2008-13

Banks	2008-09	2009-10	2010-11	2011-12	2012-13
Public Sector Banks	0.18	0.20	0.18	0.14	0.14
Private Sector Banks	0.26	0.37	0.39	0.33	0.29

Figure 6: Group-wise Loss Assets of Banks



Discussion

A close look at the gross and net NPAs reported in tables 1-6 reveals the following relevant points:

1. The NPA (both gross and net) of public sector banks shows a marked rising trend during the 5 year period 2008-13. Clearly, this is an undesirable and disturbing aspect. In contrast, the other three sectors (old and new private banks, foreign banks) display a falling trend, indicating a concerted effort by these banks to reduce the NPA.
2. The private sector banks particularly those which are new have the NPA often less than one percent, which points to their efficiency of NPA management.
3. On pooling the figures, the GPA for all scheduled banks (figure 2) shows a steadily rising trend with an exception for the year 2010-11; when it was marginally lower than that in the previous year.
4. The group-wise sub-standard loan assets of the banks show an upward trend for public sector banks. The trend is reverse for the private sector banks, a feature in keeping with the contrasting positions regarding NPAs.
5. The group-wise doubtful loan assets have recorded an increasing trend in the case of public sector banks as a group. In the case of private sector banks, the trend has been upward for the first three years followed by a welcome falling trend. Also it is noteworthy that the public sector banks showed a better position than the private sector until the year 2011-12, when the latter gained the ground to be below the public sector banks.
6. Finally, with reference to group-wise loss assets, the public sector stands more favourably than the private sector (whose curve is entirely above that of the former). Individually, each of the two sectors displays a wavering trend.

NPAs pose a serious danger to the banking industry. A recent assessment (The Hindu, July 2014) of the gross NPAs for public sector banks puts the total figure at a whopping Rs.2,04,000 crores. In Karnataka state alone, there are more than 180 defaulters, each with dues exceeding Rupees One crore. NPAs deserve utmost attention, since bad loans ultimately affect the economy of the country.

Recommendations

For better management of NPAs, it is useful to first assess the causative factors for NPAs so that the corrective actions can be taken accordingly. The following steps may help for a better NPA management.

1. Developing a reliable and up to date information system.
2. Employing a tested credit risk evaluation system, which is capable of incorporating dynamic market conditions.
3. Establishing a sound control and feedback mechanism.
4. Creating an environment of trust and confidence.
5. Monitoring the assets continuously and making serious efforts for recovery of NPAs.
6. Putting in place a rigorous screening process before granting credit.
7. Public sector banks may emulate some of the effective steps taken by their private sector counterparts in this regard.

Scope for further work

The problem of NPA has far reaching implications for the banking sector and hence to the economy of the country. Further studies may examine bank-wise norms and practices to manage NPA. In particular the focus may be on a critical comparison between public and private sector banks in this respect. This may throw up some latent factors that can help to tackle the NPA problem more effectively. In the conceptual platform, the inter relation between NPAs and Capital Adequacy Ratio may be closely examined the check whether the latter can be a lever to the former.

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The Role of Spurious Products in Rural Retailing-A Study

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Abstract

When taking the subject of rural marketing in India, everyone related it to the enormous size and demand base as it brings huge opportunities to marketers. Huge revenue is generated in this field owing to the majority of population residing in rural areas. This brings about the threat of counterfeits and pass-offs, the knowledge of which is of utmost importance to the consumers in this part who tend to go about the purchasing based on the look, design and many more features of a brand. Recently, researchers have paid increasing attention to rural marketing, but the rural marketing domain has unique characteristics that require industry specific knowledge development. Marketers in this area face unique challenges in every aspect of rural marketing. Rural marketing, from the point of view of spurious products is an under researched area within the rural marketing discipline. The authors attempt to identify various issues relating to spurious products by examining previously published research in conjunction with the data collected in rural Karnataka state, relying on survey data collected from 310 retailers and 1,620 rural consumers across Karnataka state, the authors find that multi-brand wholesalers, suppliers are the key players behind the whole issue and examine the various methods to reform situations by offering various suggestions based on this research. Rural marketers can use this detailed discussion to fight effectively against counterfeits and pass-offs.

Key words: Spurious products, FMCG, Haats, Logos and Signs.

Introduction

Indian rural market with its colossal size and demand base offers tremendous opportunities to marketers. Almost 65 percent of India's consumers live in rural areas and almost (or nearly or about) one third of the national income is generated from rural India. It is only natural that rural markets form an important part of the total market of India. Everyone sees it as a profusion of opportunities, whether for marketing of durables, textile and garments, personal care products and financial services.

The rural marketer is facing an entirely different set of conditions and problems when marketing in rural areas as compared to urban areas. There are many challenges that FMCG companies face in tackling rural markets, namely their small size, remoteness, poor connectivity, tremendous heterogeneity, low level of literacy, too many languages and dialects, low per capita disposable incomes, acute dependence on the monsoon, seasonal demand and media darkness are some serious limitations.

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Rural consumers are basically illiterate and identify a product by its logo, colour and packaging. This makes it easy to sell look-alike products to them. As per Nachlappan (2003) basically there are two types of spurious products which are counterfeits and pass-offs. Counterfeits are fakes that use the similar name, design, colour, trademark and logos. Pass-off products are fakes that use similar sounding names, designed with almost similar colour and packing to deceive or mislead the rural consumers. In other words who fills spurious stuff into the branded packing. Spurious products are increasingly attacking the ₹ 90,000 crore FMCG, drugs, pesticides sector. They damage the brand reputation, create public health hazards and this loss to the government is estimated to be around Rs. 2,700 crore annually in the form of unpaid excise, octroi, sales and other tax. Today the fake products under popular brand names constitutes to a parallel industry in India. Most of them give higher margins to the retailer that varies between 25-75%, with lower end consumer prices.

Objectives of the Study

The following are the objectives of the study that the researcher wishes to enquire and understand in the process.

To understand the role of spurious products in rural retailing with respect to the following broad outlines:

(i) Reasons for selling spurious products; (ii) Sources of supply of spurious products; (iii) Identifications of spurious products by consumers; (iv) Repetitive purchase of spurious products; (v) Awareness regarding hazardousness nature of spurious products; (vi) Receipt of complaint regarding on usage of spurious products; (vii) Nature of complaints regarding spurious products, and (viii) Purchase sources of spurious products.

Research Methodology

Nature of Study

The study is exploratory in nature as it endeavors to uncover the latent behavioural aspects of rural consumers and retailers with respect to the role of spurious products in the state of Karnataka.

Universe of Study and Population

The universe of the study is rural retailers and consumers in the rural villages of Karnataka. The universe of the study is classified as North Karnataka, South Karnataka, East Karnataka and West Karnataka. The scope of the study is limited to role of spurious products in rural areas. The study is based on the empirical survey of 200 villages situated in the state of Karnataka.

Primary Data Source

First hand information was obtained from respondents through a structured questionnaire. An interview schedule was constructed to elicit information from the respondents. The researcher had to construct two sets of questionnaire; one for eliciting information from the rural retail respondents and another distributed across all strata of consumer respondents, the strata decided by the distance to the nearest town and every seventh household in the selected strata. The questionnaire contained different sections and each section concentrated on particular aspect of the retailing and buying behavior of spurious products.

Pilot Study

Before scaling for full research, the researcher initiated a pilot study with 30 rural retail respondents and 100 rural consumers. These collected questionnaires were analysed to determine whether the data collected helped the researcher in fulfilling the objectives of the study, apart from testing the validity of the questions put across to the respondents – both rural retail respondents and rural consumers.

In this section, the researcher discusses the results of the survey with reference to the validity of the questionnaire and profiles of the respondents and retailers simultaneously with the researcher discuss the testing of the proposed hypotheses. The validity of the questionnaire was adjudged using Cronbach's coefficient (α) calculated to test the reliability and internal consistency of the responses. Cronbach's coefficient having a value of more than 0.5 is considered adequate for such exploratory work. The values of α in this study for the three reported questions were found to be 0.736, 0.805and 0.765 giving an average value of 0.768. It implies that there is a high degree of internal consistency in the responses to the questionnaire.

Sampling Plan

The sampling plan adopted for the survey was stratified two-stage. The census villages were the first stage units (FSUs), while households were the second stage-sampling units (SSUs). The selection of villages was done with probability proportional to population (with replacement), based mainly on the 2001 census list of villages. For first stage units, the sampling frame of the strata was the 2001 census list of villages. The sample blocks were selected by simple random sampling without replacement, also in the form of two independent sub-samples. The list of villages were listed in spreadsheet (MS Excel) and random numbers generated. The condition by which a sample (village) is included is based on the condition whether the random number generates a value greater than 0.5. If the random number generated is less than 0.5 for an assigned village, the village is excluded from the sample.

For fulfillment of the research objective, the rural consumer respondents have been selected from different villages of the four regions viz., North, South, East and Western part (clusters) of Karnataka state. For the second stage, 400 households within each cluster were selected. The selection of households is designed to capture almost all cross sections of rural consumers and their buying behavior residing in the villages of Karnataka state. A total of 4-10 households have been visited per village, based on the size of the village. To elicit the data, questionnaire is administered to rural consumers. For selection of household the researcher selected every 7th household in the sample villages chosen.

In order to understand the retailer's role, the researcher covered three hundred and twenty retail shops across two hundred villages to study the rudiments of rural – retail channel. In covering each village, an attempt was made to contact two to five retailers depending upon the number and type of shops existing in the village.

Sample Size

The researcher has arrived at a sample size of 1600 for rural consumer respondents and 320 for rural retail respondents from among four zones of Karnataka state comprising approximately 200 accessible villages.

Analytical Method

The data collected is initially organized in a meaningful manner with the help of software. Once organized, the researcher tabulated the frequencies, which provided the requisite profile of the data collected and helped the researcher build the contingency tables for further detailed analysis. On performing detailed analysis, patterns from the data is further put for validation through testing of hypothesis, wherever the researcher deemed important and based on the conditions set for such test.

Data Analysis and Interpretation

Table No.1: Package Reading Habits of the Rural Consumer Respondents

	Frequency	Percent
No	568	35.5
Yes	1032	64.5
Total	1600	100.0

Table No.2: Details Observed in General by the Rural Consumer Respondents on the FMCG Wrapper While Purchasing

	Date of Manufacturing and Expiry		Brand Name		Logos/ Signs		MRP	
	F	%	F	%	F	%	F	%
No	280	17.5	512	32.0	528	33.0	160	10.0
Yes	752	47.0	520	32.5	504	31.5	872	54.5
Total	1032	64.5	1032	64.5	1032	64.5	1032	64.5
	Ingredients		Special Offers		Net Weight		ISI Mark	
	F	%	F	%	F	%	F	%
No	848	53.0	544	34.0	816	51.0	808	50.5
Yes	184	11.5	488	30.5	216	13.5	224	14.0
Total	1032	64.5	1032	64.5	1032	64.5	1032	64.5

Source: Field survey

Inference

The intention of the researcher in constructing Table 2 is to understand what information the rural consumer observes on the FMCG packing while purchasing. 54.5% of the respondents indicate that predominantly look for MRP, 47% indicating they look for date of manufacturing and expiry, 32.5% indicating their search for brand name, 31.5% indicating their search and confirmation for logos and signs on the package of FMCG and 30.5% indicating that they look for special offers. Only 14%, 13.5% and 11.5% indicate that they look for ISI mark, net weight and ingredients on the package of FMCG while purchasing them.

Table No.3: Test of Significance: Education Level of the Rural Respondents on Observed Details on the Fmcg Wrapper

The intention of the researcher in constructing Table 3 is to understand the pattern of response for the kind of packing reading habits of the rural consumer respondents classified on the basis of education of the rural consumer respondent. To understand the significance as to the influence of education on packing reading habits, the researcher constructed the following hypothesis and used Pearson chi-square test to prove or disprove the hypothesis.

H0: There is no significant influence of the education on the package reading habits of the rural consumer respondents.

H1: There is a significant influence of the education on the package reading habits of the rural consumer respondents.

Peason Chi-Square Tests

		Observed details on the FMCG wrapper
Education Status	Chi-square	598.281
	df	48
	Sig.	.000

Results: Since the tabulated value of α^2 is 598.281 with 48 degrees of freedom with a significance level of 0.000 which is lesser than the set significance of 0.05 (95% confidence limit) for tabulated relationship, the null hypothesis is rejected and the alternative hypothesis accepted.

Table No.4: Recognition of Brands by The Respondents

	Reading		By Colour		Logos/ Picture/ Trademark	
	F	%	F	%	F	%
No	544	34.0	784	49.0	832	52.0
Yes	1056	66.0	816	51.0	768	48.0
Total	1600	100.0	1600	100.0	1600	100.0

	Packing Style	
	F	%
No	1160	72.5
Yes	440	27.5
Total	1600	100.0

Source: Field survey

Inference: From Table 4, it is evident that 66% of the rural consumer respondents recognize brands through reading, 51% recognizing through colours, 48% through scanning of logos/pictures/trademark and 27.5% indicating that they recognize brands through packing style of the product.

Brand Recognition and Sale of Products at MRP
Table No.5: Package Reading Habits of The Rural Consumers as Per The Opinion of Rural Retail Respondents

	Responses		Percent of Cases
	N	Percent	
Date of Manufacturing	73	11.9	27.3
Date of Expiry	65	10.6	24.3
MRP	232	37.8	86.9
Special Offers	212	34.5	79.4
Net Weight	21	3.4	7.9
ISI mark	11	1.8	4.1
Total	614	100.0	230.0

Source: Field survey

Inference

The intention of the researcher with Table 5 is to understand from the rural retail respondents what indicators does the consumers look on the packing while purchasing the product. Researcher from the study and discussion have understood the following factors can be observed on the packing, viz – date of manufacture, date of expiry, MRP, special offers, net weight and ISI mark. From Table 5.15.1, it is evident to the researcher that 37.8% of the consumers meticulously observe MRP, followed by 34.5% observing special offers and 11.9% observing date of manufacturing. Only 10.6% observed date of expiry on the packs of products that they are purchasing.

Table No.6: Method of Recognition of Brands by Rural Consumer Respondents as Per The Opinion of Rural Retail Respondents

	Responses		Percent of Cases
	N	Percent	
Reading	236	21.8	74.9
Colours	289	26.7	91.7
Logo/ Pictures	298	27.6	94.6
Packing	199	18.4	63.2
Other Means	59	5.5	18.7
Total	1081	100.0	343.2

Inference

The intention of the researcher with Table 6 is to understand how consumers recognize the brands as per the perception of rural retail respondents. Researcher has identified that the following are means by which a brand can be easily recognized, viz – reading, colours, logo/pictures, packing and other means of recognition, which are not included in the above. From Table 6, as per the observation of the rural retail respondents, 27.6% recognize the brands by looking at the pictures or logos, followed by colour of packing with 26.7% responses, 21.8% through reading and 18.4% responses stating the identification of products through packing.

Table No.7: Reasons for Selling Spurious Products

	Responses		Percent of Cases
	N	Percent	
More Margin	251	26.6	92.3
Availability	106	11.2	39.0
Credit facility provided	128	13.5	47.1
Low Price	203	21.5	74.6
Customers Preference	195	20.6	71.7
Others	62	6.6	22.8
Total	945	100.0	347.4

Inference

The intention of the researcher in constructing Table 7 is to understand the reasons why rural retail respondents sell spurious products. From the study, vide Table 7. 26.6% of the respondents stated that they required more margin, followed by low price with 21.5% responses. The other three major reasons as attributed by the rural retail respondents are customer's preference, credit facility offered by the dealer of spurious product and availability with 20.6%, 13.5% and 11.2% respectively.

Table No.8: Test of Significance: Capital Employed by the Retailers on Reasons for Selling Spurious Products

Researcher here tries to understand the influence of capital outlay on reasons for selling spurious products. To test the above interaction the researcher constructed the following hypothesis and used Pearson Chi-Square analysis to prove or disprove the hypothesis.

H0: There is no significant influence of capital employed on reasons for selling spurious products.

H1: There is a significant influence of capital employed on reasons for selling spurious products.

Pearson Chi-Square Tests

		Capital Outlay
Reasons for selling spurious products	Chi-square	35.371
	df	24
	Sig.	.063

Result

Since the tabulated value of α^2 is 35.371 at 24 degrees of freedom with a significance level of 0.063, which is greater than set significance of 0.05 (95% confidence limit) for the tabulated relationship, the null hypothesis is accepted and alternative hypothesis is rejected.

Table No.9: Sources of Supply for Spurious Products

	Responses		Percent of Cases
	N	Percent	
Multi brand whole sellers	241	48.9	90.6
Distributors	68	13.8	25.6
Manufacturers	20	4.1	7.5
Traveling Sales Men	125	25.4	47.0
Others	39	7.9	14.7
Total	493	100.0	185.3

Source: Field survey

Inference

The intention of the researcher in constructing Table No.9 is to understand in brief the major sources of supply of spurious products. From discussion with rural retailers and on further investigation, the researcher has narrowed down on the following as the source of supply of spurious products – multi-brand whole sellers, distributors, manufacturers, traveling sales men and other miscellaneous sources not covered by the earlier specific sources (shops at haats). 48.9% of the respondents stated that multi-brand whole sellers as their major source of spurious products, followed by traveling sales men with 25.4% responses and distributors with 13.8% responses. Only 7.9% and 4.1% of the respondents indicated their source of spurious supply as other miscellaneous source and manufacturers.

Table No.10: Identification of Spurious Products by Customers

	Responses		Percent of Cases
	N	Percent	
Reading	194	29.1	71.3
Colours	136	20.4	50.0
Logos and Pictures	176	26.4	64.7
ISI Mark	49	7.3	18.0
Usage Experience	101	15.1	37.1
Other Means	11	1.6	4.0
Total	667	100.0	245.2

Source: Field survey

Inference

The intention of the researcher with Table No. 10 is to understand how the rural consumers understand whether a product is spurious or not. From analysis, discussion and study, the researcher has devised the following parameters to gauge, viz – reading, colours, logos and pictures, ISI mark, usage experience and other means which have been not covered by the above parameters. 29.1% of the rural retail respondent indicated that the consumers identify whether a product is spurious by reading the contents of the package, followed by 26.4% by looking at the logos and pictures, 20.4% through the pattern of colours and 15.1% through usage experience. Only 7.3% and 1.6% indicated the use of ISI mark and other means to recognize whether a product is spurious or not.

Table No.11: Repetitive Purchase of Spurious Products

	Frequency	Percent
Not at all	25	7.8
Only in emergency	5	1.6
Some times	91	28.4
Frequently	134	41.9
Always	17	5.3
Total	272	85.0

Source: Field survey

Inference

The intention of the researcher from Table 11 is to understand the repetitive purchase nature of spurious products by consumers. As per the rural retail respondents, 41.9% of the responses indicated that the consumers frequently purchases spurious products, followed by 28.4% stating that they sometimes purchase spurious products and 5.3% stating that they always purchase spurious products. Only 7.8% of the responses indicated that the consumer would not purchase spurious products at all, once he recognizes that the product supplied to him was spurious.

Table No.12: Test of Significance: Identification of Spurious Products on Repetitive Purchase

The intention of the researcher is to understand whether there is any significant impact of identification of spurious product and repetitive purchase pattern of spurious products. To test the above statement, the researcher has constructed the following hypothesis and to prove or disprove the hypothesis the researcher has employed Pearson Chi-Square test.

H0: There is no significant influence of identifying spurious products and repetitive purchase pattern of spurious products.

H1: There is a significant influence of identifying spurious products and repetitive purchase pattern of spurious products.

Pearson Chi-Square Tests

		Identification of spurious products
Repetitive Purchase Pattern of Spurious Products	Chi-square	189.700
	df	24
	Sig.	.000

Result

Since the tabulated value of χ^2 is 189.700 at 24 degrees of freedom with a significance level of 0.000, which is lesser than set significance of 0.05 (95% confidence limit) for the tabulated relationship, the null hypothesis is rejected and alternative hypothesis is accepted.

Table No.13: Awareness of the Rural Retailer Respondents on Hazardous Nature of Spurious Products Vended

	Frequency	Percent
Not Aware	80	25.0
Not at All	125	39.1
Slightly	49	15.3
Moderately	18	5.6
Total	272	85.0

Source: Field survey

Inference

The intention of the researcher is to understand the perception of hazardousness of using spurious products from the angle of rural retail respondents. From Table 13, the researcher can infer that 39.1% of rural retail respondents indicate that there is no harm on using the spurious products that they sell, followed by 25% indicating that they are not aware of any hazardousness of using the spurious products that they are selling and 15.3% stating that they are slightly hazardousness. Only 5.6% of the respondents indicated that the spurious product that they sell is moderately hazardous.

Table No.14: Receipt of Complaints Regarding Usage of Spurious Products

	Frequency	Percent
No	85	26.6
Yes	50	15.6
Sometimes	137	42.8
Total	272	85.0

Source: Field survey

Inference

From Table No.14, the researcher intends to understand the whether there arises any complaint from the consumers who have used spurious products. 42.8% of the rural retail respondents stated that they sometimes receive complaints, followed by 26.6% of the rural retailers indicating that they do not receive complaints and 15.6% stating that they do receive complaints regularly from consumers who have used spurious products.

Table No.15: Nature of Complaints Regarding Spurious Products

	Responses		Percent of Cases
	N	Percent	
Regarding Quality	123	36.4	65.8
Regarding Health	34	10.1	18.2
Usage Uncomfortability	181	53.6	96.8
Total	338	100.0	180.7

Source: Field survey

Inference

The intention of the researcher in constructing Table 15 is to understand the nature of complaints that are received from consumers who use spurious products. 53.6% of the respondents stated that the consumers complain about usage uncomfortability, followed by 36.4% of the respondents indicating quality related complaints and 10.1% regarding health related complaints on using spurious products.

Table No.16: Relationship Between Annual Household Income and Brand Recognition Habits

The intention of the researcher is constructing Table No: 16 is to understand the extent of correlation between the annual house hold income of the rural consumer respondents and the means used by the rural consumer respondent in recognizing a brand. To test for a liner relationship and its strength the researcher constructed the following hypothesis and used a Pearson correlation coefficient to prove of disprove the hypothesis.

H0: There is no significant correlation between annual household income of the rural consumer respondent and means by which the rural consumer respondent recognizes a brand.

H1: There is a significant correlation between annual household income of the rural consumer respondent and means by which the rural consumer respondent recognizes a brand.

Correlations

		Recognise Particular Brand				
		Reading	By Colour	Logos/ Picture/ Trademark	Packing Style	Other Identification
Annual House Hold Income	Pearson Correlation	.384(**)	-.397(**)	-.351(**)	-.220(**)	-.005
	Sig. (2-tailed)	.000	.000	.000	.000	.834
	N	1600	1600	1600	1600	1600

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

Result

As the tabulated value of Pearson correlation coefficient for recognizing the brand through reading is 0.384, with a significance level of 0.000; -0.397 for recognition of brand by colour with a significance level of 0.000; -0.351 for recognizing brands through logos and signs with a significance level of 0.000; -0.220 for recognizing brands through packing style with a significance level of 0.000, all of these having a significance values less than 0.05, the null hypothesis is rejected and the alternative accepted. In case of recognition of brands through other identification techniques, with a Pearson correlation value of -0.005, with a significance level of 0.834, which is greater than the set significance of 0.05, the null hypothesis is accepted and the alternative rejected.

Inference

From Table No: 13 the intention of the researcher is to understand the significance of correlation between annual household income and recognition of brands through- reading, colours, logos, pictures and trademarks, packing style and other identification techniques. From Table No: 13 it is evident to the researcher that there is a moderate negative correlations between annual house hold income and recognizing a brand through colour with a Pearson correlation coefficient of -0.397, recognizing a brand through logos, picture and trademark with a Pearson correlation coefficient of -0.351 and recognizing a brand through packing style with a Pearson correlation coefficient of -0.220. There is an observable very low negative correlation between annual household income and recognizing a brand through other identification means with a Pearson correlation coefficient of -0.005. There is a moderate positive correlation between annual household income and recognition of brand through reading with a Pearson correlation coefficient of 0.384. As the tabulated significance has lead to the rejection of null hypothesis the researcher can safely infer that there is a significant correlation between annual household income and recognition of brand through reading, colours, logos, pictures and trademarks, and packing style.

Summary of Findings

1. 45% of the rural consumer respondents attributed minor importance to packing, 25% attributing a major importance, 17.5% attributing not much significant and 12.5% attributing packing as not at all important.
2. 98.5% of the rural consumer respondents preferred sachets, 97% preferred loose packs, 47.5% preferred poly packs and 25% preferred plastic jars.
3. 64.5% of the rural consumer respondents observe the written descriptions while purchasing FMCG and 35.5% do not observe the packing of FMCG while purchasing.
4. 54.5% of the rural consumer respondents look for MRP, 47% look for date of manufacturing and expiry, 32.5% look for brand name, 31.5% look for logos and signs and 30.5% look for special offers.
5. There is a significant influence of the education on the packing reading habits of the rural consumer respondents.
6. 66% of the rural consumer respondents recognize brands through reading, 51% recognizing through colours, 48% through scanning of logos/pictures/trademark.
7. 26.6% of the rural retail respondents required more margin, 21.5% favoured low price, 20.6%, due to customer's preference, 13.5% since spurious product suppliers offered credit facility and 11.2% due to availability of spurious products.
8. There is no significant influence of capital employed on reasons for selling spurious products.
9. 48.9% of the rural retail respondents point to multi-brand whole sellers as their major source of spurious products, 25.4% relies on traveling sales men, 13.8% on distributors, 7.9% indicate miscellaneous source and 4.1% of the respondents indicate other sources.
10. 29.1% of the rural retail respondents indicated that the consumers identify spuriosity of a product through reading the contents on the package, 26.4% by looking at the logos and pictures, 20.4% through the pattern of colours, 15.1% through usage experience, and 7.3% indicated the use of ISI mark.
11. 41.9% of the rural retail respondents' responses indicated that the consumers frequently purchase spurious products, 28.4% sometimes purchase spurious products, 5.3% always purchase spurious products and 7.8% of the consumers were not purchasing spurious products at all, on recognizing that the product supplied to him was spurious.
12. There is a significant influence of spurious products' identification and repetitive purchase pattern of spurious products.
13. 39.1% of rural retail respondents state that there is no harm in using the spurious products, 25% are not aware of any harmfulness by using the spurious products, 15.3% state that they are slightly harmful and 5.6% indicated that the spurious products that they sell is moderately hazardous.
14. 42.8% of the rural retail respondents stated that they sometimes receive complaints, 26.6% do not receive complaints and 15.6% do receive complaints regularly from consumers who have used spurious products.
15. 53.6% of the rural retail respondents indicate that the consumers complain about usage uncomfortability, 36.4% indicated quality related complaints and 10.1% of the complaints regarding health related problems.

Suggestions

1. Evidence from this study shows that majority of rural consumers ask for just about any product rather than the brand while buying FMCG, , this is one of the important factor for pushing pass-off and spurious or counterfeit and regional brands by the retailers. Still majority of rural consumers recognise brands by packing, logos, trademarks and colours, it is suggested to the marketers to adapt colours, logos, trademarks, pictures while targeting the rural mass.

2. In most of the cases spurious products are pushed by the multi brand wholesalers in the feeder towns

and district headquarters because of huge margin involved in this parallel channels. They act either as a merchant middle man or manufacturers of spurious products. This issue is very important from their perspectives because of big margin in spurious products. Even with this regard product's name in local language can also make a difference in creating consumer awareness and making a sustainable customers-base in rural areas. It is strongly suggested to educate these distributors or wholesalers about hazards of the spurious products.

3. Yet another way to counter this spurious bane is upgrade packaging i.e., more sophisticated and capital-intensive technology should be employed by the marketers. Therefore it is suggested to adapt high quality techniques in packaging for the products while marketing in rural areas in order to make the manufacturers of these counterfeit difficult to replicate major brands.

4. The major complaints about spurious products are quality of the product, uncomfortability in usage and health hazards. As health hazards is of major concern strong measures like adoption of villages and recruitment of educated rural youths to address these issues to the rural masses by the marketers. Therefore, in this regard, it is suggested to employ product's name in local languages and dialects to create consumer awareness.

Conclusion

This empirical study has filledin the gap that arises out of standardisation of marketing practices at the urban and rural markets. The problem that FMCG brands face in the Indian market is quite like the problem the film and music industry, faces with piracy, pharmaceuticals and agriculture inputs with look-alike or totally spurious, and toy industry, lubricants battles with look-alikes. The channels of distribution that can be successfully deployed to reach these untapped pockets require ingenuity and creativity. The means by which the products are identified or recognized in the rural masses are different from that of the urban masses. This provides a reasonable opportunity for pushing spurious products, which needs to be controlled. Study also highlights that, rural retailers are stocking spurious products because of more margins, its low price and availability of credit from the suppliers. Spurious products are mostly pushed by the distributors in the feeder towns. It is evident from the study that the law is stringent but its enforcement is weak not only in rural areas but even in urban areas. Finally, counterfeiting can only be tackled effectively if law enforcement agencies and private companies work together and share important information in this regard. The marketers who understand the rural consumer and fine tune their branding strategies by incorporating rural element while developing packaging strategies specifically for rural markets are sure to reap fruitful benefits in the ensuing years.

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Application of TQM in Resolving e-Commerce Challenges

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Abstract

e-COMMERCE is facing a number of challenges today. Although, the future of retailing in India lies in e-Commerce, its current penetration is not encouraging. The giants and the pioneers in e-Commerce are struggling today with a number of issues. These issues and many other challenges can be resolved with the help of the doctrine of TQM. The study addresses to various quality issues of the web sites which are neglected to fulfil the requirements of the customers, and propose Total Quality Management (TQM) implementation as the best solution to sort out the issues.

KEYWORDS & PHRASES

TQM, e-Commerce, penetration, Security, Internet Users & Consumers.

Introduction

According to a survey by industry body ASSOCHAM, the e-Commerce market in India has grown to an astonishing figure of $ 16 billion in 2013, clearly indicating a boom in the online retail trends and defying slower economic growth and spiralling inflation. "The increasing Internet penetration and availability of more payment options boosted the e-commerce industry in 2013," ASSOCHAM Secretary General D S Rawat said.

"Besides electronics gadgets, apparel and jewellery, home and kitchen appliances, lifestyle accessories like watches, books, beauty products and perfumes, baby products witnessed significant upward movement in last one year," Rawat said. According to the survey, India's e-commerce market, which stood at $2.5 billion in 2009, reached $8.5 billion in 2012 and rose by 88 per cent to touch an astonishing figure of $16 billion in 2013. The survey has estimated that the country's e-commerce market to probably reach $56 billion by 2023, driven by rising attraction towards online retail.

To make the most of increasing online shopping trends, more companies are collaborating with daily deal and discount sites, the survey pointed out. "Having close to 10 per cent of Internet penetration in India throws a very big opportunity for online retailers to grow and expand as future of Internet seems very bright," Rawat said.

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Online business sells to individuals. It is the indirect trade between the company and consumers. The basic concept of this model is to sell the product online to the consumers. Amazon.com has been able to sell books and many other items directly from its warehouse to people. The internet is changing how logistics and supply chains work since the “middle man” or distributor is eliminated by selling products directly from the factory to the end consumers, i.e., B2C – Business-to-Consumer.

e-Commerce has several benefits, but it is having several quality issues as well. We propose Total Quality Management (TQM) as the solution. TQM is a set of guiding principles for continuous improvement. It is a customer driven philosophy wherein the stress is ultimately on customer delight. TQM has a tremendous potential to generate the improvements in the process of e-Commerce. TQM focuses on meeting the needs of the customer. TQM is not inspection, but actually the prevention of defects, involving everyone in the organization.

Total Quality Management (TQM) comprises customer focus and continuous improvement. Hence, quality begins with understandings of customer’s requirements upon which the performance goal for the organization is based. Variation in quality is controlled by using statistical methods. Continuous improvement begins with statistically defined current process and identifies the future modifications to the process that might reduce the defects and increases the predictability of the performance. In this research paper the concept of TQM and e-Commerce is explained. It discusses the issues of the quality in E-commerce. Finally, it analyses the applicability of TQM in the e-commerce (B2C). According to the survey by ASSOCHAM, as per responses by 3,500 traders and organised retailers in Delhi, Mumbai, Chennai, Bangalore, Ahmedabad and Kolkata who participated in the survey, online shopping grew at a rapid pace in 2013 due to aggressive online discounts, rising fuel prices and availability of abundant online options.

Among the cities, Mumbai topped the list of online shoppers followed by Delhi, while Kolkata ranked third, the survey found.

The age-wise analysis revealed that 35 per cent of online shoppers are aged between 18 years and 25 years, 55 per cent between 26 years and 35 years, 8 per cent in the age group of 36-45 years, while only 2 per cent are in the age group of 45-60 years. Besides, 65 per cent of online shoppers are male while 35 per cent are female.

The products that are sold most are in the tech and fashion category, including mobile phones, ipads, accessories, MP3 players, digital cameras and jewellery, among others, it found. India has Internet base of around 150 million as of August, 2013, the survey said.

"Having close to 10 per cent of Internet penetration in India throws a very big opportunity for online retailers to grow and expand as future of Internet seems very bright," Rawat said.

Those who are reluctant to shop online cited reasons like preference to research products and services online (30 per cent), finding delivery costs too high (20), fear of sharing personal financial information online (25) and lack of trust on whether products would be delivered in good condition (15), while 10 per cent do not have a credit or debit card.

This paper attempts to analyze the benefits of implementing total quality management principles in e-business. Majority of leading companies are implementing customer focused quality management principles. Cost reduction, improve quality, efficiency and customer satisfaction are the core benefit of total quality management (TQM). TQM have helped many companies to improve their competitiveness (Yang, 2003). E-commerce helps to find new customers and it enhances the improvement of services for the existing customers.

An Organization survives because of its customers. A service sector has to have regular orders to keep its wheels moving. Hence, ISO 9000:2000 incorporated customer focus as an improvement. A customer is satisfied if his implied needs are satisfied and he becomes a goodwill ambassador for the Organisation. Basically, a customer is satisfied by the use of a product and the service associated with it. With reference to the service , time utility, place utility and the price play a pivotal role in customer satisfaction, wherein he looks for 'value for money'.

Some of the building blocks of TQM are (i) act always in line with the needs of the customers (ii) do right the first time by focussing on zero defect' banner (iii) involve all participants in the enterprise (iv) measure 'value-added'. The objective is to attain performance level of the highest order so that the Organisation attains market leadership.

The success of TQM involves commitment of employees as well as commitment from the top because the objective of a service organisation maximizing its performance regarding customer satisfaction. This can be achieved only by understanding the customers' stated and implied needs and developing a user-friendly customer-oriented products and services.

The Total Quality Management system believes in rewarding performance. The reward need not be always monetary. A healthy, sincere appreciation can go a long way in boosting morale. A non-performer has to be tactfully dealt with in improving performance. Comparing himself unfavourably with fellow colleagues actually has a demoralising effect that will ultimately affect the overall performance of the Organisation.

Some of the points of Edward Deming to reach world class standards in performance can be applied to e-commerce. They are: (i) achieve a constancy of purpose (ii) learning of new philosophies in management in terms of growth (iii) reduce the number of vendors in terms of delivery of goods. Have only those who are committed and reliable (iv) Improve supervision but, at the same time, drive out fear from the minds of the employees (v) Improve communication with internal and external customers (vi) Use relevant statistical tools to eliminate defects in the system (vii) act on feedback given by the customers

Value Analysis

From the customers' viewpoint, value can be seen into two parts: one the 'musts', which are the basic requirements, regarding the service and two: the 'wants', which are the desirable features about the service. Hence, the service provide should fit for the use of the customer and the user-friendliness decides about the market leadership.

From the Organisation perspective, the products or services marketed have certain internal factors to be taken into consideration. This pertains to optimum utilisation of internal resources. Most important is the type of labour which may cost the organisation in terms of quality and competency. Applying productivity techniques such as kaizen, muda, mura, poka yoke, jidoka will help in improving performance of the work-force.

The various methods of implementing value analysis could be as follows: (i) simplify operations (ii) standardize procedures (iii) reduce lead times (iv) eliminate unnecessary wastage in time (v) seek fruitful and practical solutions from employees (vi) use 'ergonomics' to improve performance at delivery points

One thing which is important in any organisation is 'change' or 'improvement' as otherwise, an organisation will be obsolete, outdated and would not survive for long in this fierce competitive world. Hence, 'continuous improvement' should be the way of life for any world class organisation. ISO 9000-2000 has made it compulsory for organisations going for certification to have evidence that they are practicing the Deming's P-D-C-A cycle, as this practice inculcates the practice of continuous improvement.

Challenges in e-Commerce

Logistics and fulfilment are the largest challenges in India when it comes to the arena of e-commerce, with more than half of all online retail sales being done using cash on delivery (COD). While COD is essential in a nascent e-Commerce market, it can have a large negative impact on business margins. This is exacerbated in a nascent market where consumers are testing this new medium of ordering goods, as the return rates can be quite high. In India, reportedly, the return rates can vary from 5% to more than 25%, depending on the category, the demographics of the online buyers, and their online tenure.

The biggest challenge in e-commerce industry is the extent of reverse logistics and the fact that it is increasing with every passing day, especially after the advent of COD mechanism, the instances of the same are on a rise. This is very evident in India more because of the customers' ignorant attitude to 'try out' the service.

Reverse logistics are often more time sensitive than getting the goods to the customer in the first place. This is because of the risk of obsolescence, or usability, of the returned goods. This is one of the many factors that motivate and compel e-commerce providers to outsource their reverse logistics setup. Returning goods back to the manufacturer creates problems for the manufacturer in terms of finding the exact reason for the return. Many times it could be the customers' fault in ordering the incorrect product.

A significant part of reverse logistics involves trashing the goods collected from customers. Waste has always been a contentious issue with ever changing legislation. As a result, a specialist reverse logistics provider is usually in a better position to dispose off a product in a manner that is compliant with regulation.

Interestingly, the mark-ups that reverse logistics providers use often tend to be higher than the original mark-up by the ecommerce merchant. This is not really the anomaly as it seems, since the e-commerce merchants could get saddled with returned goods. Once these goods start piling up, the e-commerce merchant would not be able to continue his usual business owing to the finance blocked in these goods.

Two key lessons have to be looked into with regard to traditional logistics: responsibility and information accuracy. Brick-and-mortar companies understand that someone has to own the order fulfilment process and proper monitors need to be in place. In an environment where logistics operations are being managed internally, there is a logistics manager who tracks, among many things, where each order is in the supply chain at any given time. This manager has ownership of the business architecture, design and acquisition of the systems and processes for tracking orders.

Instead, if an organization outsources fulfilment to a third party logistics provider, someone must still be responsible for managing the relationship with the provider. This manager identifies the points of contact where information will flow back and forth between the two organizations. The customer also sets the performance metrics on which the relationship will be evaluated.

While order fulfilment is ultimately about getting product from its source and delivering it to the customer, maintaining and providing accurate order management information is really the key to keeping the promise to the customer. Accurate information management requires agreement between all e-fulfilment. The competitive advantage involves accuracy (e.g. 95% vs. 100%), ownership, timeliness and distribution of the information, immediacy of updates, maintenance of confidentiality and security, and a variety of other factors that must be carefully designed and planned.

Order fulfilment responsibility and information accuracy are traditional priorities that have many times got lost in the world of e-commerce. Tomorrow's winners realize this and are taking action to fix the problem. This is essentially a by-product of the improper processes by the outsourced logistical partner. There are instances of goods beings delivered to the consumer in a damaged state. This abstains the consumer to go for online purchase especially in case of fragile goods.

With an increase in the e-fencing of stolen merchandise, attention has recently turned to the role of Internet marketplaces such as eBay and Overstock in combating. These marketplaces take various measures to combat the sale of stolen and fraudulently obtained goods—not solely by organized retail criminals—on their websites, including educating sellers and consumers, monitoring suspicious activity, and partnering with retailers and law enforcement.

For instance, these marketplaces may provide guidelines for website use that would require users to acknowledge policies regarding goods that may or may not be sold through the website. In addition, online markets may create filters to search for prohibited items up for auction. They may then take actions such as removing the prohibited items, sanctioning the policy violator, or referring the case to law enforcement. E-Bay has created such filters based on input from regulatory agencies, law enforcement agencies, the retail industry and member reports.

Fulfilment is probably the most important aspect of an e-commerce business because it is probably the last a thing customer remembers about his interaction. For example, If a waiter in a restaurant has been exemplary for an entire meal, but inadvertently takes five minutes too long to bring the cheque, the customer is probably going to have a poor opinion about the restaurant. Likewise, if everything about the e-commerce site is in-place, but the customer has experienced a bad fulfilment experience, he is not going to blame the fulfilment company.

Vendors may make mistakes by sending the wrong items, or by sending too many or too few. Or, items may get damaged during delivery to the fulfilment centre. How will the fulfilment company handle this? In fact, will they even know if an item is damaged? Or, will they know if a change was made to the packaging? All such acts will not be known till the customer complaints. If control is lost over such an essential part of e-business, the organisation is destined towards major problems.

For e-commerce to meet its potential in the next several years, it is going to require greater amounts of bandwidth both in backbone networks and in local access connections to users. The best starting point is to identify the infrastructure product most employed by business users to build networking capabilities. The most common building blocks used to construct or permanently connect to e-commerce networks (e.g. Internet, Intranets etc.) are private lines which are leased from telecommunication carriers (i.e. leased lines).

TQM Resolutions to e-Commerce Challenges

TQM offers effective measures in improving e-commerce in terms of satisfying the customers' needs. Some of the measures that can be applied are as follows

1. Order receiving and processing

A customer generally assumes many aspects of his order. When he places an order, he is generally under the impression that he has given all the necessary details along with the order. The service provider must use the S.M.A.R.T. principles in analysing the order: Specific, Measureable, Accurate, Realistic, Time-bound. In case of any clarification, the customer should be contacted to confirm the order. The principle should be 'do-right-the-first-times. This will avoid customer dissatisfaction and return of goods.

2. Committed employees

The service provider should train and motivate employees in serving the customers to fulfil their wants. An employee should be appreciated and rewarded for his good work. The management should have empathy towards the employees and be proactive towards their genuine needs. The management should shun bureaucratic attitude and, where required, interact directly with the employees. Working-alongwith-people is more important today rather than working-above-people. The top management is doomed if it allows its ego to mix with its position while dealing with employees.

3. The 5S principle

5S is a part of lean management as it eliminates wastes. It stands for the five Japanese words: SEIRI (tidiness) , SEITON (Orderliness) , SEISO (Cleanliness) , SEIKETSU (Standardization) , SHITSUKE (Discipline). When applied, these principles actually reduce the cost. These should become an organization culture. In fact, one of the biggest advantage is that it helps in S.K.U – Stock-Keeping-Unit as it helps to spot-the-required-stock immediately.

4. Kepner-Tregoe Method of Problem Solving

K-T Problem Analysis is a systematic method to analyse a problem and understand the root cause of the issue instead of making assumptions and jumping to conclusions, which is still common place even today. This method has become very popular in IT and technical fields, but can be applied to a wide range of problems.

The same structure of Problem analysis is used in DMAIC and has been proved many times over in the field. Furthermore specific aspects of the Problem Analysis method can be used to greatly improve and strengthen these other problem solving methods. It is a habit of the management to attack the 'symptoms'. Rather than understand the 'root cause' of the problem. This is more so in service industries.

5. Performance Measures

Adequate performance measures regarding reducing of defects in delivery, customers' complaints regarding packaging, delays in attending to customers' requirements, inefficiency in employees regarding conforming to set-standards of work, etc. Statistical control charts for variables and attributes can be designed to improve performance. This should be backed by training, brain-storming sessions, suggestion-cum-reward schemes, which will help in improving performance.

Conclusion

Today, the customer is a part of the business. The survival of an organisation depends upon the satisfaction level of the customers which is very important for service industries. In fierce competitive world, a customer has many options today. Hence, a committed customer is very important for a service organisation.

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