

# International Review of Business and Economics

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**FROM WELL-HEELED TO TIP-TOED, SHOE-SHINE TO SHOE-LACE:  
MONOPOLISTIC COMPETITION AND PRODUCT DIFFERENTIATION  
IN MEN'S FOOTWEAR**

Vishal Kumar and Satish Y. Deodhar<sup>1</sup>

<sup>1</sup> Authors are Consultant, DHL Consulting, Singapore; and Professor of Economics, Indian Institute of Management Ahmedabad, respectively. Contact for the corresponding author: [satish@iima.ac.in](mailto:satish@iima.ac.in)  
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## ABSTRACT

For many decades, the only branded footwear Indians knew was Bata. After years of economic liberalization; however, one finds many local, national, and international firms jostling for customer attention by producing various types of branded footwear. In fact, India has now emerged as the second largest producer of footwear in the world. The Indian footwear market can be described today as a stylized case of a monopolistically competitive market. In this study, we focus our attention on men's formal shoes which are differentiated by variations in many attributes such as heel, toes, colour, surface, laces, buckles and brands. Invoking hedonic price analysis and bid and offer curves of the customers and firms respectively, shoe prices are viewed as the sum total of the valuation of each of these attributes. The relative valuation is estimated by regressing market prices of shoes on its binary variable attributes. Analysis shows that shoes made of leather, shiny surface, buckles, laces, and brands carry a premium; and, differentiation based on colour, pointed toes, high heels, and texture is not important. In a highly competitive market, such data driven studies can provide pointers to firms in altering existing shoe models and successfully launching newer ones.

**Key Words:** Monopolistic Competition, Product Differentiation, Hedonic Pricing, Men's footwear, India.



## INTRODUCTION

Traditionally referred as 'The Sleeping Giant' of global footwear industry, Indian footwear industry has come a long way from being viewed as a mere low cost supplier of leather material and footwear. Today, it has emerged as the second largest producer of footwear in the world, next only to China. A report by Transparency Market Research [TMR] had valued the global footwear market at USD 185 billion in 2011 and it is expected to reach USD 211.5 billion by 2018. A lot of this growth is predicted to take place in the Asia Pacific region with overwhelming domination by India and China. In fact, TMR [2012] projections show that these two emerging markets will account for more than 30 per cent of the global revenues in 2018.

While footwear production capacity of India is only second to China in the world, there is significant difference in the absolute size. In 2011, while China produced more than 10 billion pairs of footwear [RNCOS, 2012]; India produced only a little more than 2 billion pairs. Moreover, domestic footwear brands have hardly made any impact in foreign countries. Of the 2 billion footwear pairs, only 115 million pairs were exported in 2011. Going by the projections for domestic footwear demand, it is going to be a herculean task to strengthen and protect the domestic industry from foreign players, especially the low-cost footwear players from China.

One of the interesting things about Indian footwear market is the fact that men's footwear segment covers more than 50 per cent of the entire footwear market in India. Within this segment, demand of formal footwear is on the rise due

to India's growing younger working-class population. With changing lifestyles, evolving fashion trends, increased consumer disposable income, and rise in organized retail, men's formal footwear market in India is in a transformative phase. In 2012, India allowed 100 per cent foreign direct investment [FDI] in single brand retailing. Going by the number of retail outlets at airports and shopping malls that carry international brands, it is evident that foreign players are gaining a foothold among Indian consumers. Moreover, although Indian government had mandated that 30 per cent of materials must be sourced domestically, this has not been an impediment for foreign brands as they already procure and import more than 30 per cent of their footwear materials from India [FU, 2012]. Therefore, gone are the days when Bata was the only foreign manufacturer in Indian market. Today, if there are many domestic brands including the more popular ones such as Metro, Liberty, and Corona; there are also quite a few foreign brands such as Clarks, Aldo, and Hush Puppies<sup>1</sup> among others. Market for men's formal shoes, therefore, can be described in the language of neoclassical microeconomics as a 'monopolistically competitive' market – That is, the market is intensely competitive with many firms trying to woo the customers, and, at the same time, many firms have been successful in creating brand loyalty among customers through product differentiation and advertising.

While price is an important consideration in purchase decisions, Indian consumers, especially in the young working men segment, are starting to explore

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<sup>1</sup> Hush Puppies is a branded footwear of the US firm Wolverine Worldwide Inc. For quite some time, it has licenced Bata India to produce and market Hush Puppies through its exclusive stores. Perhaps, foreign firms are preparing themselves for the moment, when Indian government allows FDI in multi-brand retailing [ET, 2012]!

and experiment with various non-price factors such as trendy styles, comfort, quality, and brand recognition. In these changing market conditions, the entry of foreign players would certainly affect the sales of local and national footwear brands. Therefore, it becomes imperative for the domestic manufacturers and other stakeholders to formulate a strategy to maintain or increase their market share. This would require a clear understanding of consumers' preferences and the importance they attach to various quality attributes of men's formal shoes. Once the consumer valuation of various shoe attributes is understood, the industry players can enhance brand loyalty by altering or adding features to the existing shoe styles. Armed with new or altered features, firms can aggressively market their shoes to increase the footfall and sales in the stores.

In the context of the above discussion, this paper attempts to identify the consumer preferences and valuations of various quality attributes of men's formal footwear by applying hedonic price analysis methodology to 150 shoe models across 18 different brands in the Indian market. The large number of shoe types as well as brands makes this analysis fairly representative of the Indian formal footwear market. With a total of 150 observations on prices and quality attributes, the regression model presented in the subsequent sections adds robustness to the analysis. In the section that immediately follows, we cover a brief review of existing literature on hedonic price analysis and some of the key results. Section 3 describes the methodology used in this paper for carrying out the analysis. Information on data collection, regression results, and key inferences are provided in Section 4. Finally, Section 5 provides concluding observations and pointers for further research.

## 2. LITERATURE REVIEW

Hedonic price analysis methodology has been around for nearly a century now and over the years, it has been mainly used in the field of agribusiness sector. In the early 20th century, Waugh [1928] pioneered the work on measuring consumers' relative valuation of quality attributes of vegetables in Boston market. Several decades later, in a classic paper on consumer theory, Lancaster [1966] showed that goods are a combination of multiple characteristics and these characteristics play a significant role in determining the consumer preferences. In one of his most critically acclaimed papers, Rosen [1974] showed that equilibrium price of a differentiated product is the summation of the implicit prices of the utility bearing characteristics of that product. Using this principle, studies have been conducted on processed food products such as wine, fruit juices, and tea. For example, Schamel, Gabbert and Witzke [1998] did a study on wines in US market based on sensory attributes and factors such as region of origin and wine vintage. They found that consumers paid premium not only for sensory quality but also for reputation of the region of origin. Similarly, Weemaes and Riethmuller [2001] examined the fruit juice industry in Australia to measure the relative importance of the various quality attributes of fruit juices. They found that nutrition, convenience in usage, and product information were the main factors that commanded a price premium. Yet another study on Indian tea by Deodhar and Intodia [2004] showed that among various attributes of tea, aroma and colour were the most prominent attributes valued by Indian consumers.

Of course, hedonic price analysis has not remained confined to processed food products alone. One finds its applications for valuation of characteristics of

farmland, real estate, sportspersons, and even marriage! For example, Elad, Clifton, and Epperson [1994] used hedonic analysis to determine the relative worth of farmlands in the US state of Georgia by deriving implicit prices of quality attributes of farmlands. Similarly, Tse and Love [2000] applied the hedonic methodology to determine the consumers' valuation of residential property in Hong Kong market. Rastogi and Deodhar [2009] were the first to apply hedonic price analysis to cricket players. They focused their attention on the inaugural Twenty-20 format of the game played in the Indian Premier League [IPL] in 2008. For their analysis, they used the IPL 2008 auction prices of cricketers and the cricketing and non-cricketing attributes of those players. Among other results, *ceteris paribus*, they showed that on an average, the auction price of an Indian player was US\$ 258,000 more than the auction price for non-Indian player, and non-cricketing attributes also played an important role in determining the player price.

Interestingly, Rao [1993] conducted a study in which he estimated the rise of dowry in India using socio-economic and demographic attributes of brides and grooms in South Indian villages. A combination of growing population, higher number of people in younger cohorts, and substantive difference between marriageable age of women and men leads to surplus of women in marriage market. They find that this demographic feature defined as 'marriage squeeze' results in the rise of dowry in Indian villages.

While the above mentioned studies present various interesting applications of hedonic price analysis, no such study has been conducted on the footwear market, either in India or in any other global market. As alluded to in the earlier section; a combination of economic growth, changing lifestyle, and opening-up of the

economy to rest of the world has dramatically catapulted Indian footwear market on a high pedestal! It has turned the market into a classic example of a monopolistically competitive market. While there are many local, national, and international brands in the market, there is also enough scope for product differentiation – Men’s formal shoes could be well-heeled or with no heel, they may be tip-toed or flat toed, they could be with laces or without, they could be shiny or matt textured, they could be black or brown coloured, and the shoes could be branded or generic ones. Therefore, what other but an uncharacteristically ordinary product such as footwear has emerged as an excellent candidate to carry out hedonic price analysis! In what follows, we focus our attention on hedonic price analysis of men’s formal footwear in the Indian market. This enables us to measure consumers’ relative valuation of various quality attributes of men’s formal footwear and offers clues to firms - what attributes they may alter or add to stay ahead of competition.

### **3. METHODOLOGY**

In this paper, we have adopted the model suggested by Rosen [1974] while the notation terminology is taken from Schamel, Gabbert and Witzke [1998]. According to the model suggested by Rosen, in equilibrium, value of any economic good is based on its utility bearing attributes. That is, the equilibrium market price of any economic good turns out to be the sum total of shadow prices that a consumer is willing to pay for its utility enhancing attributes. For example, for a representative good  $Z$  with  $N$  attributes, the hedonic price for good  $Z$  can be represented as:

$$P_Z = f(Z_1, \dots, Z_K, \dots, Z_N),$$

(1)

where  $P_Z$  is the price of good  $Z$  and  $Z_1, \dots, Z_K, \dots, Z_N$  are the  $N$  attributes of good  $Z$ .

Moreover, the utility maximization problem can be represented as:

$$\text{Max } U = U(Z, X) \quad \text{s.t.} \quad M - P_Z - X = 0,$$

(2)

where  $M$  represents income and  $X$  represents a composite numeraire commodity representing all other goods. Here we make an implicit assumption that in a given period a consumer purchases one unit of good  $Z$ . The marginal rate of substitution (MRS) between the  $K^{\text{th}}$  attribute of  $Z$  and the numeraire good  $X$  is given by:

$$MRS = \frac{\delta U / \delta Z_K}{\delta U / \delta X}.$$

(3)

In equilibrium when utility  $[U]$  is maximized, the MRS must be equal to the ratio of the shadow price of the attribute  $Z_K$  and the price of  $X$ .  $X$  being the numeraire good, therefore, the following equilibrium condition emerges:

$$MRS = \frac{\delta U / \delta Z_K}{\delta U / \delta X} = \delta P_Z / \delta Z_K,$$

(4)

where  $\delta P / \delta Z_K$  represents the marginal implicit price of characteristic  $Z_K$  of the product  $Z$  and would correspond to the regression coefficient of  $Z_K$  in equation (1) above. Further, we can write the utility function  $U$  as:

$$U = U (M - P_Z, Z_1, \dots, Z_K, \dots, Z_N).$$

(5)

Solving the above mentioned equation for  $P_Z$  by keeping  $U^*$  &  $Z_{-K}^*$  constant at their optimal values as mentioned in equation [2], one can generate a bid curve B as:

$$B = g (Z_K, Z_{-K}^*, U^*).$$

(6)

*Ceteris paribus*, the bid curve B shows the maximum amount that a consumer would be willing to pay for a unit of Z as a function of the attribute  $Z_K$ . Higher the amount of  $Z_K$  in Z, higher would be the bid price B. Thus, B will be a positively sloped function with respect to  $Z_K$ . Moreover, we assume diminishing marginal utility with respect to  $Z_K$ , and, therefore, the bid curve B would be a concave function with respect to  $Z_K$ . Based on different consumers' preferences/incomes, we can have different bid curves  $B^I(Z_K)$  &  $B^J(Z_K)$  for two different consumers I and J as shown in Figure 1(a). For any such bid curve, a shift in the south-east direction would represent higher level of welfare for the consumer.

Similarly, on the supply side, we can sketch out an offer curve C for a representative firm with respect to the attribute  $Z_K$  as follows:

$$C = h (Z_K, Z_{-K}^*, \pi^*).$$

(7)

The offer curve C of a representative firm shows the minimum price at which the firm would be willing to sell a unit of Z as a function of  $Z_K$  while keeping all other attributes ( $Z_{-K}^*$ ) and profit ( $\pi^*$ ) at the optimal level. The offer curve C is positively

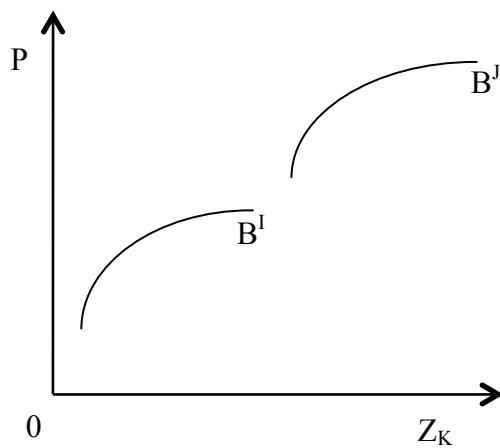


sloped with respect to  $Z_k$ , for additional amount of  $Z_k$  can be offered only at a higher price. Moreover, offer curve  $C$  is a convex function with respect to  $Z_k$ , for it exhibits increasing marginal cost of providing additional units of  $Z_k$ . In Figure 1(b),  $C^R(Z_k)$  and  $C^S(Z_k)$  represent offer curves for two different firms  $R$  and  $S$ . For any offer curve, a shift in the north-western direction would be more profitable for a firm.

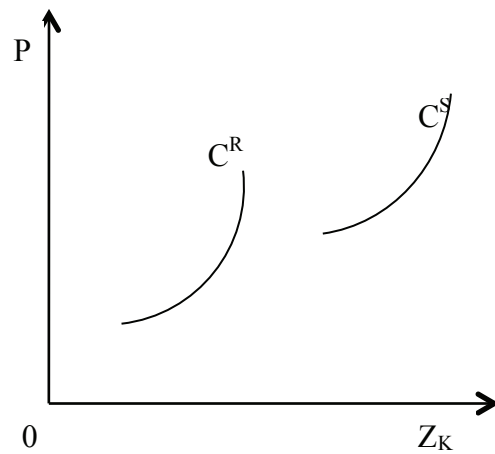
Figure 2 shows that a differentiated product  $Z$  is being bought and sold at different prices, which contains different levels of attribute  $Z_k$ . In equilibrium,  $P_{IR}$  price is paid by consumer  $I$  to firm  $R$  for a differentiated good which contains  $Z_{kIR}$  level of attribute  $Z_k$ . This equilibrium price and level of  $Z_k$  is the result of tangency between the bid curve  $B^I$  and offer curve  $C^R$ . Similar tangency condition ensures that consumer  $J$  purchases good  $Z$  from firm  $S$ , for a price  $P_{JS}$  and which contains  $Z_{kJS}$  level of attribute  $Z_k$ . Of course, superscripts in the functions  $B$  and  $C$  need not just be representing two consumers and two firms but two groups of consumers and/or firms. In fact, we can generalize this to say that there could be many groups of consumers and firms who trade  $Z$  at different prices and different levels of  $Z_k$  attribute in it. The relation between the locus of such equilibrium tangencies ( $P$  and  $Z_k$ ) can be estimated. In fact, since there are  $N$  different attributes of  $Z$ , such relation can be estimated between price  $P$  and all attributes ( $Z_1, \dots, Z_k, \dots, Z_N$ ) of  $Z$ . Therefore, given the market prices of each of the differentiated product  $Z$  and varying values for its quality attributes ( $Z_1, \dots, Z_k, \dots, Z_N$ ), one can estimate equation (1) which is described as the hedonic price equation. This hedonic price equation may not be linear (as may appear in Figure 2). An appropriate functional

form can be always be estimated econometrically by applying a suitable Box-Cox transformation to the data.

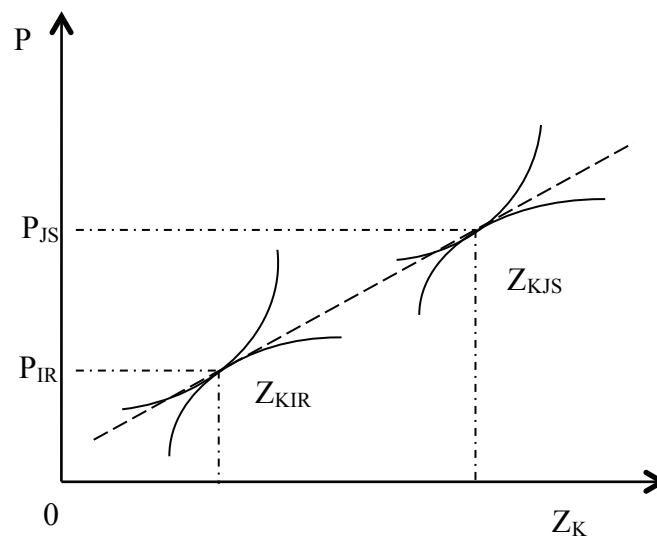
**Figure 1(a): Bid Curves Curves**



**Figure 1(b): Offer Curves**



**Figure 2: Equilibrium Hedonic Price and Quality Attribute**



With many local, national, and international brands in men's formal shoe category, the industry represents a typical case of a monopolistically competitive market. The good Z described in this section very well represents the men's formal shoes sold in India. These shoes can be described as a differentiated product with varying prices and characterized by varying quality attributes. Therefore, a hedonic price analysis can be done by regressing prices of men's formal shoes on its various quality attributes. We turn to the empirical estimation of this equation in the next section.

#### **4. DATA, REGRESSION, AND INTERPRETATION**

Our paper analyses the data of 150 types of men's shoes from 18 different brands in the Indian market. The data were collected from various online e-commerce websites like flipkart.com and also by visiting many shoe shops in Ahmedabad city (between January to March 2014). All shoe prices were considered at MRP (Maximum Retail Price) level. For our research analysis, we identified ten key quality attributes of men's formal shoes. These include, (1) shoe composure - whether the shoe was made from genuine leather or otherwise; (2) colour - whether the shoe colour was black or otherwise [mostly brown]; (3) texture - whether the shoe texture was plain or chequered; (4) structure - whether the shoe was tip-toed [pointed] or otherwise; (5) lace - whether the shoe had laces or otherwise; (6) heel - whether it was high-heeled or flat; (7) surface - whether the shoe surface was shiny or otherwise; (8) buckle - whether it had a buckle or otherwise; (9) brand (national) - whether the shoe was from a national brand or

otherwise, and (10) brand (International) - whether the shoe was from an international brand or otherwise. Of course, if a shoe is neither from a national brand nor from an international brand, it gets characterised as a locally made generic shoe. *Ceteris paribus*, inclusion of the national/ international/ local brand captures the consumer perception about identifying shoe quality that is associated with its brand and origin.

Given the data and the above description of the variables, we regressed prices of 150 types of shoes on its 10 quality attributes. The spectrum of the coverage of the men's formal shoes is quite wide – It includes 9 international brands including Aldo, Clarks, Steve Madden, Bata etc. and 8 national brands including Liberty, Metro among others. Each of the brands has many types of shoes depending upon the 8 attributes mentioned above. In the model, the shoe price [P] ranges from Rs. 550 to Rs. 9990 covering a wide cross section of men's formal shoes sold in Indian markets. The variables representing the quality attributes ( $Z_1$  to  $Z_{10}$ ) are all dummy variables taking value 1 or 0 depending on presence or absence of a particular quality attribute. The Descriptive statistics of the data is provided in Table 1 below.

**Table 1: Descriptive Statistics**

Variable Description		Shoe Count	Mean	$\sigma$
P	Max Retail Price (Rs.)	Total = 150	3307	1923
$Z_1$	Composure (1 if leather,	Leather = 110	0.73	0.44

	else 0)			
Z <sub>2</sub>	Colour (1 if black, else 0)	Black = 107	0.71	0.45
Z <sub>3</sub>	Texture (1 if chequered, else 0)	Chequered = 59	0.39	0.49
Z <sub>4</sub>	Structure (1 if pointed, else 0)	Pointed = 41	0.27	0.45
Z <sub>5</sub>	Lace (1 if it is present, else 0)	With lace = 74	0.49	0.50
Z <sub>6</sub>	Heel (1 if it is present, else 0)	With heel = 101 <sup>a</sup>	0.67	0.47
Z <sub>7</sub>	Surface (1 if shiny, 0 if dull)	Shiny = 92	0.61	0.49
Z <sub>8</sub>	Buckle (1 if present, else 0)	With Buckle = 23	0.15	0.36
Z <sub>9</sub>	= 1 if National brand, else 0	National = 63	0.42	0.49
Z <sub>10</sub>	= 1 if international brand, else 0	International = 73	0.49	0.50

<sup>a</sup> Considered to be present if heel height is greater than or equal to 1 inch from the sole.

To choose the functional form for the hedonic price equation, a particular Box-Cox transformation of the variables is used which fits the data best. In particular, a transformation could use dependent and independent variables in

levels (Lin-Lin) or in logs (Log-Log) or one could be in logs and the other in levels (Log-Lin or Lin-Log), or both could be used by taking first differences. Of course, in the current estimation, all independent variables ( $Z_1$  to  $Z_{10}$ ) are dummy variables taking a value of 1 or 0. Therefore, transformations such as the Log-Log, Lin-Log, and first-differences cannot be used. Log-Lin transformation seemed to fit the data best which can be described by the functional form:

$$\ln P = \beta_0 + \sum_{k=1}^{10} \beta_K Z_K.$$

[8]

This function in its original exponential form is written as:

$$P = e^{[\beta_0 + \sum_{k=1}^{10} \beta_K Z_K]}$$

[9]

The above function is valid only for positive values of  $P$ , which makes sense as (shoe) prices will always be positive. Here the coefficient  $\beta_K$  demonstrates a constant percentage change in  $P$  due to a unit change in the quality attribute  $Z_K$ ; i.e.,  $\beta_K = 1/P * [dP/dZ_K]$ . Moreover, the intercept term  $\beta_0$  captures all other factors that potentially could affect the shoe price and is not covered among the 10 attributes. The results of the estimation are reported in Table 2 below. Table 3 reports the econometric robustness of the estimated equation. The regression equation produced a Multiple  $R^2$  and the Adjusted  $R^2$  of 0.77 and 0.56, respectively. It also meets the goodness-of-fit test with F-statistics of 20.0 significant even at a p-value of 0.0001. Also, the estimated  $\chi^2$  values of B-P-G and Glejser test were not significant at 0.05 p-value. Therefore, the null hypothesis of homoscedasticity could not be rejected. Moreover, the independent dummy variables were tested for

multicollinearity using Klein's rule. All the auxiliary  $R^2$  values were lower than overall  $R^2$  indicating absence of multicollinearity among the independent variables.

**Table 2: Hedonic Price Equation** (Dependent Variable:  $\ln P$ )

Variable ( $Z_k$ )	Coefficient ( $\beta_k$ )	T Statistics
Constant	6.37 <sup>a</sup>	42.23
$Z_1$	0.32 <sup>a</sup>	3.79
$Z_2$	- 0.04	-0.53
$Z_3$	0.04	0.52
$Z_4$	- 0.01	-0.07
$Z_5$	0.16 <sup>b</sup>	2.02
$Z_6$	- 0.10	-1.31
$Z_7$	0.28 <sup>a</sup>	3.66
$Z_8$	0.29 <sup>a</sup>	2.77
$Z_9$	1.20 <sup>a</sup>	9.05
$Z_{10}$	1.28 <sup>a</sup>	10.12

<sup>a</sup> Significant at 0.01 two-tailed test, <sup>b</sup> significant at 0.05 two-tailed test

**Table 3: Diagnostic Tests of the Regression**

1. Coefficient of Determination	Multiple $R^2$	0.77
	Adjusted $R^2$	0.56

2. Overall Significance	F Statistics	20.00 <sup>a</sup>
3. Homoscedasticity Tests	B-P-G $\chi^2$ Glejser $\chi^2$	8.07 <sup>b</sup> 1.01 <sup>b</sup>
4. Multicollinearity	Klein's Rule <sup>c</sup>	$R^2_{Z1} = 0.18, R^2_{Z2} = 0.09$ $R^2_{Z3} = 0.11, R^2_{Z4} = 0.12$ $R^2_{Z5} = 0.30, R^2_{Z6} = 0.18$ $R^2_{Z7} = 0.17, R^2_{Z8} = 0.22$ $R^2_{Z9} = 0.11, R^2_{Z10} = 0.05$

<sup>a</sup> Significant at 0.01, <sup>b</sup> not significant at 0.01 & 0.05, <sup>c</sup> auxiliary R<sup>2</sup>s less than overall R<sup>2</sup>

Our analysis presents some interesting results for men's formal footwear in Indian markets. One of the key variables which showed major impact on the shoe price is its composure; i.e. whether shoes are made up of leather or any other material. *Ceteris paribus*, i.e. holding other things constant, our analysis indicates that consumers are willing to pay a premium of 32 per cent for leather shoes over non-leather shoes. On an average, this amounts to a premium of about Rs. 691. Quite interestingly, colour of the shoe does not play a major role in deciding the consumer perception towards its price. That is, on an average, a particular colour, black or brown is not valued more over the other. We found colour coefficient to be insignificant in the analysis. Perhaps, one of the reasons for this insignificance is the fact that today, most of the shoe varieties are available in wide range of colours and consumers are not required to pay an additional amount to choose a particular colour over the other. We also found other attributes such as texture, structure and



heel to be insignificant in our analysis. These attributes do not seem to influence shoe prices. That is, whether or not the shoe texture is chequered or smooth, whether shoes have pointed or round and square toes, and, whether they are well-heeled does not seem to matter much in Indian markets. However, although the coefficient of [high] heel was statistically insignificant; the coefficient itself was negative in value. This may suggest that high heel shoes are perhaps considered to be less formal by men's segment in India and/or perhaps they are less comfortable to wear.

And there were some other interesting results as well. The coefficients of attributes related to shoe laces, shoe surface, and buckles were positive and quite statistically significant. We find that consumers are willing to pay 16 per cent or about Rs. 472 more for shoes with laces over slip-on [non-lace] shoes. Although Slip-ons may seem to be convenient to use, however, men seem to consider shoes with laces more formal than slip-ons. Also, men prefer shoes with shiny surface over flat or matt finished ones and are willing to pay 28 per cent more for it. This amounts to a premium of about Rs. 720. Perhaps this indicates that consumers see value in buying shoes which do not require frequent polishing. A buckle seems to be considered as a style symbol in luxury shoes. We find that *ceteris paribus*, the price of a shoe with buckles is 29 per cent more than that of a shoe without buckles. This 29 per cent premium amounts to an absolute premium of about Rs. 939. This may be an indication of a changing fashion trend among Indians where a shining buckle shoe may have become a style statement and they are willing to pay more than Rs. 900 for it.

Importantly, even after controlling for about 8 quality attributes of shoe, we find that there is strong premium attached to the intangible attribute - brand. Both national and international brand coefficients were highly statistically significant and commanded about 120 per cent and 128 per cent premium over local brand. This translates into an absolute premium of about Rs. 1002 and Rs. 1069, respectively over locally made generic shoes. This clearly confirms that consumers are ready to pay a huge premium for a brand which is recognized nationally or internationally, despite controlling for the important 8 quality attributes we have incorporated in the analysis. Moreover, with a difference of about Rs. 67, the premium difference between an international brand and a national brand is quite insignificant. And finally, the constant term in the hedonic price regression is also statistically very significant. The constant term captures the influence of variables that are not explicitly included in the hedonic price equation. These could relate to quality attributes such as comfortable insoles, better fit to the foot, and shoes being heavier or lighter to wear etc.

## **5. SUMMARY AND CONCLUDING OBSERVATIONS**

Today, India and China are the world's two leading shoe producers. While India does export a significant volume of footwear, it is on the cusp of a retail revolution in the domestic market. With high GDP growth rate, allowance of 100 per cent FDI in single-brand retail, changing lifestyle, and larger share of younger population, Indian footwear market is bound to become one of the largest in the world in the upcoming years. Currently, men's footwear segment covers more than half of the entire footwear market in India and many firms including local, national

and international are competing with each other in selling differentiated shoe brands in Indian markets. Therefore, this market can be characterized as a classic case of a monopolistically competitive market with many firms selling many differentiated versions of men's formal shoes.

In such a competitive market, it becomes imperative for shoe manufacturers and retailers to understand consumer perceptions of various quality attributes of shoes. Understanding consumer preferences about the designs and the relative valuation of the quality attributes would help them develop more ergonomic designs and cater better to the taste of consumers in men's formal footwear category. Equilibrium price of any product is the result of the interaction between demand and supply for that product. Different varieties of men's formal shoes sell at different prices at a point in time and a consumer too makes an informed choice to pick a particular kind of shoe. This means that a consumer makes utility maximizing choices of different quality attributes of a shoe which result in buying a particular kind of shoe. Therefore, the equilibrium prices of different shoes can be thought of as sum total of the relative valuations of their quality attributes. Given the market prices of shoes and measurements of different quality attributes, a hedonic price analysis accomplishes just that.

Our paper presented hedonic price analysis of men's formal shoes in Indian market. We identified 10 key variables which might have impact on shoe prices and performed regression analysis by keeping the price as the dependent variable. The regression equation reveals quite a few relative valuations of different quality attributes of men's formal shoes. Controlling for all other attributes, it is clear that

<sup>1</sup> Authors are Consultant, DHL Consulting, Singapore; and Professor of Economics, Indian Institute of Management Ahmedabad, respectively. Contact for the corresponding author: satish@iima.ac.in

consumers do not have any specific preference for shoes with heel or without, shoes with pointed toes or flat ones, shoes that have plain texture or chequered, and shoes of different colours i.e. black or brown. Therefore, no premiums are attached to these quality attributes.

On the other hand, there are quite a few attributes that command huge premiums. Controlling for all other quality factors, men's formal shoes with laces are valued more than the slip-on shoes. Perhaps shoes with laces are considered more formal than the other. Buckle on the shoe seems to be a style statement, for the coefficient associated with it was statistically quite significant. Moreover, shiny shoes seem to be preferred over flat or matt finished ones indicating value attached to saving time and efforts required for frequent polishing. Consumers also seem to be very brand conscious. Both national and international brands command a premium of more than Rs.1000, despite controlling for all other quality attributes. Thus, brands seem to signal quality and it is imperative that shoe manufacturers pay attention to brand building exercise. Another important feature is the premium for leather shoes over shoes made from man-made-materials which suggest that leather seems to add more formality to shoes than any other material.

In the present study, for the men's formal shoes available in the market, we have incorporated as many quality attributes as we could get information on. However, there could be some factors which market prices and physical attributes of the shoes do not reveal. Contribution of such factors gets included in the constant term of the hedonic price equation. We do find that the constant term in the regressed equation was quite significant. Factors such as sole material, shoe fit

and comfort, and shoe being light or heavy could be considered in such attributes for which data is not available. Of course, advertising and promotions also influence consumers' perceptions. However, such influences get captured in the brand dummy which we have used in our analysis.

The above results presented in the paper have important implications for shoe manufacturers, domestic & international retailers and export houses. In fact, when it comes to Indian consumers in men's formal footwear segment, having a strong brand presence pays a rich dividend. Thus, it is important for local traders and local manufacturing hubs to expand their brand presence all over the country to gain better market share. Given the changing fashion trends among young working men in the emerging markets such as India, China and other Asian countries, it becomes important for manufacturers, retailers & traders to know the evolving fashion trends and accordingly alter or design shoes that suit the growing consumer needs. As evident from our study, even a minor addition of Buckle in the shoes or making the shoe surface shiny can give high returns in these emerging markets. Another important fact among Indian consumers is the importance given to leather shoes over non-leather shoes in formal footwear category. However, we also found that international brands are able to charge high price even for shoes that are not made of leather, thus clearly showing how an established and internationally recognized brand influences consumers price and quality perception of shoes.

We anticipate our study to act as a template or a yardstick for incumbent firms, potential entrants, and other stakeholders of footwear business in emerging

markets. They could work around with the various shoe attributes to develop appropriate shoe varieties particularly suited to emerging markets of India and other Asian countries as consumer preferences largely depend on the ten key attributes listed in the paper. Of course, the hedonic price analysis is based on market data of prices and physical attributes of shoes, and therefore, it is impersonal in nature. It can be further complemented by market research techniques such as dip-stick surveys.

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**GENESIS OF EFFECTIVE RURAL COMMUNICATION FOR DEVELOPMENT: A  
PRAGMATIC STUDY ON INDIA**

Pooja Suri

Director

Sardar Bhagat Singh College of

Technology & Management

Lucknow

Swati Chopra

Assistant Professor, School of Management

Babu Banarasi Das University, Luckno

**ABSTRACT:**

Rural segment also known as the BOP (Bottom of Pyramid) segment, in India has lately become an area that corporates' just can't afford to ignore. The dynamics of rural segment is worth studying. The products that are offered to rural consumers may or may not be different, but the way these products are marketed ought to be very different. Marketers always look for innovative ways to make their presence felt. But, what could be the possible communication strategy to reach the huge market at Bottom of the Pyramid. The regional disparities are many and there is a need for customized communication strategy. While a lot of thrust is being given to the marketing strategies for rural markets, especially distribution and packaging aspects, little is being talked about the specific communication strategies required there. This article intends to address this specific issue, that is, typical communication strategies that one needs to adopt to reach the consumers at the Bottom of the Pyramid. This article highlights the importance of having a specific communication strategy for the Indian BOP market. Attempts are made to fish-out important learnings' from the analysed cases with the help of which a framework for communicating effectively with the BOP markets can be designed.

***KEYWORDS:*** *Rural Communication, Strategy Development, Tools for Communication*

## INTRODUCTION:

The census of India defines rural as any habitation with a population density of less than 400 per sq.km., where at least 75 per cent of male working population is engaged in agriculture and where there exists no municipality or board. Of the nearly 6.4 lakh villages in India, only 20,000 villages have populations more than 5,000. Leaving aside Hindustan Lever and ITC, most companies in the FMCG sector would define rural as any place with a population up to 20,000. Similarly, durable and agri-input companies would consider any town with a population below 50,000 as rural.

Companies face many challenges in tackling the rural markets, some of the more critical being: understanding rural consumers, reaching products and services to remote rural locations and communicating with vastly heterogeneous rural audiences. Sadly, not many companies have invested sufficient effort and money in research and nor have they spent enough time in the field to understand rural consumers, their values, aspirations, needs and usages habits. Marketing is all about 'getting to know your customer', but having largely ignored this cardinal principle, most corporate in rural markets find that success has eluded them.

The effectiveness of rural marketing communications, to a large extent is influenced by the media habits of the rural consumers. Though all types of media is being used in rural area, in view of low level of literacy, audiovisual media- radio, TV and films assume major importance. For this reason most of the marketers prefer mass media to reach rural audiences, however, Mass media, which might work wonders in urban areas, cannot be that effective in the rural masses. This is primarily because of shortage of electricity, language diversity. To communicate effectively with rural audiences, it is important to understand, the aspirations, fears and hopes of the rural customers, in relation to each product category, before developing a communication package to deliver the product message. This study is an attempt to understand current trends in rural communications in India and thereby identify related prospects and problems. For a conceptual overview, relevant literature in this area was studied. To gain an insight into current practices, communication strategies employed by various manufacturers and service providers through secondary sources were compiled. The study provides an empirical view of the range of communications employed by the various corporates' in the Indian rural market. Some differences in trends are found across FMCG, Consumer Durable and Service sectors. A detailed description of each type of communications is provided along with a suitable package of communication strategies are suggested for various sectors to

communicate effectively to reach the rural audiences. The study ends with the broad conclusions and implications of this research.

The most crucial element in Marketing Mix as Philip Kotler calls is Communication and

as Jagadish Sheth calls is Awareness. The marketing communication must be in a language that target customers understand and relate to. The marketing communication has to vary from region to region, using diverse languages.

Companies should focus on areas with high population concentration and use non-conventional methods while communicating with their target customers.

The biggest challenge before the marketers particularly in the developing markets is to reach two things from their side up to their target Bottom of the Pyramid (henceforth referred to as BOP) market, viz, their products and their messages. So far managers have been emphasizing and attempting only on distribution of goods and services effectively which made them work on establishing distribution channels. It is only in the recent past that they realized the importance of connecting themselves with their target markets at BOP through effective messages. Thus, there gained momentum for creating a specific and effective BOP Marketing Communication Strategy (BMCS).

## Introduction to BMCS

One of the most significant components of the BOP marketing strategy is communicating with the target BOP markets. The success of the strategy will be mostly dependent up on the effective communication efforts put forth by the marketers. If the messages are not properly sent to the receivers, the marketing initiatives may not yield proper results. If the biggest marketing task before a BOP marketer is to shape the perceptions of the BOP customers in favour of company's products or brands, then it is mostly possible through meticulously planned communication format. Various other tasks like building relationships with the customer groups, persuading them to alter their buying and consumption patterns, influencing their behaviour, etc. highly depend upon the way the whole communication exercise is taken up.

Media selection, consideration of local cultures, languages, beliefs and value systems, overcoming the barriers, etc. form an important part of BOP communication strategy. With all such critical aspects kept in mind, if one proceeds to design and implement an appropriate BOP overcoming the barriers, etc. form an important part of BOP communication strategy. With all such critical aspects kept in mind, if one proceeds to design and

implement an appropriate BOP communication strategy, one may succeed in creating the market base and influencing the consumer decisions positively.

BMCS, expanded as *BOP Marketing Communication Strategy*<sup>1</sup> (henceforth referred to as BMCS) requires clearly defined communication objectives which are based on the company's vision and mission. The sole goal of BMCS must be to enable the company or sender to interact with the target audience. But at the same time it is the biggest challenge as well. BMCS may be understood as —the systematic way of conceiving and disseminating marketing related messages to achieve the predetermined BOP marketing objectives. In addition, the definition of BMCS provides clues about proper selection of media, consideration of language & cultural issues and other BOP market characteristics in designing an appropriate BOP communication strategy. The end part of the definition makes it clear that all this should be done in line with the company's marketing objectives.

### **Why a Separate Communication Strategy?**

An effective communication strategy involves planning, implementing and evaluating the process of sending messages to target audience and receiving the feedback to achieve the set communication objectives. As BOP marketing is different from general marketing, the marketing communication

must also be different. Marketing communication as such is a very difficult task and particularly communicating with the customers who are innocent, ignorant, less knowledgeable, poorer, and skeptical, who need to be educated, for whom most of the common goods are very new (the concept of virgin markets), it is not a very easy task. The marketers must keep in place specific communication tools, models and strategies for succeeding in their BOP communication effort. The messages need to be tailored according to their cultures. Their sentiments need to be addressed very cautiously and not to be hurt. Hence, there is a need for separate BOP Marketing Communication Strategy and a separate communication model.

Advertising goes hand in hand with economic growth. With economic liberalization and increasing rural prosperity, marketers are keen to inform villagers about the benefits of buying and consuming their products and services. Prior to the introduction of economic liberalization in 1990s, there was little incentive for marketers to advertise their products and services, as rural markets were predominantly a seller's market.

The influence of the electronic media, in particular television, video and the Hindi film industry, is contributing to the growth of rural aspirations, which are being manifested in rural India in the form of increasing consumerism.



The rural environment is different from the urban and therefore communication to potential customers in a proper and effective manner is a major challenge for corporate marketers. The majority of advertisements designed by corporate marketers, are largely urban oriented and extend themselves to rural areas without any consideration to the values and sensitivities of the rural audience, which are often in striking contrast to those of their urban counterparts. This has led to a negative perception in the minds of villagers, about urban media planners and advertisers.

Rural communication is not a 'peripheral activity'. It does not, for instance, involve taking an audio-visual van to a village and assuming that this step is enough to reach out to customers. It requires an entirely different mindset, which demands getting rid of many mental barriers. Companies have to realize that rural is a long-haul market, as gains in the short term are neither immediate nor large.

### **Developing Effective BMCS**

The managers proceeding towards developing effective BMCS may have to keep in mind the following aspects:

**Message Design:** This is most crucial part of developing a communication campaign. Various issues like levels of knowledge among the target audience, local issues and many more specific BOP market issues which have been mentioned earlier in this paper must be kept in mind while designing appropriate message.

**Message Format:** The managers concerned must take all care in various critical aspects like, message design, copy layout, colour, words, sounds, etc. It would generate results if the ad copy possesses more of pictures rather than words and text.

**Choosing Media:** In BOP areas, media includes, haats, local mandis, local small kirana/grocery shops, village centre, Primary Health Care Centre, School, Government office, community halls, etc. In various villages in Andhra Pradesh, the villagers are given information right from weather to rainfall to prices of various agriculture produce in the nearest grain market, etc. written on a black board meant for that purpose placed in front of the office.

**Selection of Message Source:** This is the most important part of BOP communication. In the BOP communication model it is suggested to make use of opinion leaders like, the Surpanch, the village priest, heads of different castes or communities, the Village Secretary and the Head Master as the source. While selecting the source, following points must be considered:

- Highly credible sources persuade more, and more easily
- A poor source can damage the effort than contribution

**Collecting Feedback:** It is obvious that the most important part of any communication efforts is to encourage feedback. Same in the case of BOP communication.

**Socially Responsible BOP Communications:** An effective marketing communication must

essentially follow some ethics. This includes, avoiding false and deceptive messages, avoiding bait-and-switch techniques they usually apply on urban customers, avoid communicating only with few sects or segments of the markets leading to controversies, providing fair information, etc. This is important because, the BOP masses are comparatively innocent and ignorant and once they get doubt on a source, they will never turn towards that source. The marketers must remember that the BOP customers are highly sensitive.

### **Communication for Rural Development: An Overview**

Rural development concerns usually focus on determining what rural people need in order to move up the socio-economic ladder. Most interventions revolve around investments and technologies that would improve livelihood, and the inputs necessary to put these technologies into use. While these are

considered necessary conditions to help bring about development, they are not necessarily sufficient to sustain the desired progress.

Development efforts in recent years have started to focus on other equally important factors such as human capacity and access to relevant information, knowledge and services. Documented experiences and lessons from the field have in fact indicated that development tends to fail for two basic reasons (Mefalopolus, 2008):

- lack of participation
- ineffective communication

This has increasingly drawn attention from purely technological aspects to the **institutional and social gaps** that can affect rural development, such as (Leeuwis and Hall, 2010):

- lack of information and knowledge about correct technologies and practices for managing the fragile natural environment;
- unresolved social and political conflicts that prevent communities from working together to address communal needs and interests;
- far-flung and isolated rural communities with no access to information that could help them prepare for any eventuality;
- poor skills or capacity of rural actors to undertake development initiatives on their own;

- weak capacity of local institutions to respond to local needs;
- lack of physical and social infrastructures support at the local level that would enable to enhance human and social capital.

In all the above, it is clear that the element of good communication becomes part of the solution. Responding to these challenges requires a combination of immediate, medium and long-term measures directed towards:

- strengthening rural knowledge institutions;
- improving knowledge and information sharing among the variety of rural actors and stakeholders (national agricultural research and extension systems, educational institutions, private service providers, grassroots organizations, NGOs, etc.);
- encouraging people's participation to promote concerted action.

Rural development involves **participatory innovation and social learning**. For innovation, it makes use of small-scale, low-cost and simple technologies made possible by whatever resources local communities have. For social learning, stakeholders engage in processing lessons gained from experience and share these among themselves as a basis for improving practices. Building local capacity therefore begins with the identification of local talents, good practices and know-how within rural communities. This

requires **multi-stakeholder participation and dialogic communication.**

People's empowerment, both as a means and an end, lies at the heart of this approach to rural development where information, knowledge and communication are to be considered strategic assets (FAO, 2010).

### **COMMUNICATION DEVELOPMENT (ComDev):**

As defined during the World Congress on Communication for Development in 2006:

*"ComDev is a social process based on dialogue using a broad range of tools and methods. ComDev is about seeking change at different levels including listening, building trust, sharing knowledge and skills, building policies, debating, and learning for sustained and meaningful change. It is not public relations or corporate communications."*

To better define ComDev, Table 1.1 summarizes the purpose, functions and required competencies of different communication approaches commonly encountered in development organizations.

Table 1.1 ComDev compared with other communication approaches

Feature	Corporate Communication	Integral/Organizational Communication	Advocacy Communication	Communication for Development
<b>Purpose/Definition</b>	Communicates the mission and activities of the organization, mostly for external audiences	Facilitates the flow of information within an institution, organization or project (sometimes this area can be included in corporate communication)	Influences change at the public or policy level and promotes issues related to development	Seeks sustainable social change by engaging and empowering relevant stakeholders
<b>Main Function</b>	Uses media outputs and products to promote the mission and values of the institution; informs selected audiences about relevant activities	Ensures timely and effective sharing of relevant information within the staff and institution unit; enhances synergies and avoids duplication	Raises awareness on hot development issues; uses communication methods and media to influence specific audiences and support the intended change; promotes participation in new policies and change	Supports equitable access to information, knowledge and communication resources; facilitates participation, dialogue and collective action
<b>Required Core Competencies</b>	Public relations, institutional communication, excellent writing skills, press releases, broad media network contacts	Institutional communication, excellent writing skills, web and internet skills	Public relations, marketing, experience in media campaigns and advocacy campaigns	Communication research, participatory approaches, adult education, community media, consultations and facilitation skills

What makes ComDev unique and different from other communication approaches is its participatory and holistic view of development. It does not merely address behaviour change through one-way communication, but calls for an integrated approach based on **two-way, interactive and participatory communication processes**. This builds on the understanding that communication and participation are two sides of the same coin.

Likewise, ComDev emphasizes and supports the active engagement of stakeholders in defining their problems, identifying alternative solutions and negotiating often difficult options. Rather than solely focusing on the media and technologies used, it encourages **stakeholders' empowerment through dialogue, knowledge exchange and mutual learning**.

In sum, ComDev is NOT:

- a one-way, top-down transfer of information;
- technology transfer or diffusion of innovations;
- just a matter of getting the message right or mounting public awareness campaigns;
- a social marketing effort persuading to adopt new behaviours.



## COMDEV'S ROLE IN AGRICULTURE AND RURAL DEVELOPMENT:

Communication for development can be applied in the rural sector as a crosscutting approach to address key interrelated issues such as natural resource management, agricultural innovation, food and nutrition security, climate change adaptation, disaster risk management, among others. Such issues can only be addressed in an integrated manner through collective decision making and collaboration among different actors.

For this to happen, rural stakeholders must be deliberately involved to have a say and dialogue with other sectors of society. For example, pollution of rivers and waste management cannot be solved alone by government agencies mandated to do the job. Households, industries, farmers, fishers, policy makers and law enforcers among others, have to discuss and consider varying viewpoints and stakes. Similarly, coping with a changing climate and managing the risks brought about by its disastrous effects require collective community efforts to save lives and properties.

In integrated rural development efforts, particularly in community-based approaches, ComDev serves as a means to expand and deepen the interface among the many issues and areas of expertise involved, ensuring that all

the needed actors and knowledge domains are included in the dialogue, hence, in the resolution effort.

ComDev, as a facilitator, combines several communication functions:

- identifying local knowledge, needs, expectations and priorities;
- facilitating equitable access to relevant information and knowledge;
- strengthening peoples' capacity to make their voices heard (building on existing communication systems and local contents);
- fostering multistakeholder dialogue and decision-making processes (involving policy makers, rural institutions, smallholders and local communities);
- promoting participation and collaborative action;
- enhancing mutual learning and co-creation of knowledge;
- improving negotiation, coordination and networking.

Another example is ComDev support to rural knowledge institutions and stakeholders for triggering **agricultural innovation**, by:

- increasing the responsiveness of extension and advisory services to the needs of smallholder farmers;
- bridging the gap between scientific knowledge and sound local knowledge;
- facilitating participatory research;

- enhancing collective learning and horizontal knowledge sharing among farmers;
- strengthening the dialogue between research institutions, government organizations and rural communities.

Likewise, in **disaster risk management** initiatives ComDev contributes to enabling vulnerable rural communities to get organized for quick response or to avoid being exposed to risks, by:

- implementing awareness and education campaigns to inform and guide the population (on threats, preventive measures, institutional responsibilities, etc.);
- promoting active participation of vulnerable communities in risk management plans and policies;
- identifying current practices, adaptation strategies and coping skills;
- documenting and validating best indigenous practices and local technologies;
- involving rural communities in monitoring key indicators;
- implementing early warning systems using community-based communication channels;
- mobilizing the support of different social sectors to promote rehabilitation and reconstruction in affected communities.

ComDev can therefore be considered a strategic tool in pursuing rural development goals, as it increases the participatory base of the process and facilitates the coordination of efforts, leading towards collaborative and more sustainable change.

### **PARTICIPATIVE COMDEV PLANNING:**

Tackling development issues, exploring and experimenting appropriate solutions cannot be done only by researchers, extension workers and development practitioners. It is essential to involve rural stakeholders and local community members as active partners in the diagnosis, discussion and problem-solving process. Participation, one of ComDev's pillars, entails:

*" the equitable and active involvement of all stakeholders in the formulation of development policies and strategies and in the analysis, planning, implementation, monitoring and evaluation of development activities"*

Participatory planning gives people a say and ensures that development interventions are appropriate to the needs and preferences of intended stakeholders. Usually, governments or other development agencies including civil society organizations (CSOs) initiate the participatory planning process;

while participating stakeholders include rural or urban local communities, community-based organizations and local CSOs. The level of participation can be minimal (e.g. information-gathering or consultations) or more active (e.g. identifying, prioritizing and designing programme activities).

Oltheten (1999) describes participatory planning as joint actions of local people and project staff in formulating a development plan and selecting the best available alternatives for implementing it. Each stakeholder group may have its own agenda, mandate and responsibilities; the challenge is to identify and agree upon actions suitable for all parties. During participatory planning, a **learning process of dialogue, negotiation and decision-making** takes place among project stakeholders and project staff. Through it, project activities are aligned to local needs, constraints and opportunities.

In the end, participatory planning is expected to produce four sets of results as shown in figure below:

A multiple-way learning process	Community ownership over the initiative	Enhanced political and institutional support	A gradual process of local empowerment
<b>Establishing horizontal relationships between and among various parties involved (local community, project staff, rural institutions, government) enables timely adjustment of project services to changing local realities</b>	The integration of technical support with local knowledge systems leads to development strategies and projects shaped according to local needs, opportunities and constraints. This encourages community mobilization and ownership	Building a platform for dialogue and common understanding between decision makers and rural communities, increases the capacity of local stakeholders to claim higher-quality services and stronger political commitment.	Creating opportunities also for disadvantaged groups to access external resources (training, credits) or mobilize their own resources (knowledge, skills) enhances the capacity to voice their interests and take action to defend them

**ComDev planning** is a participatory and socially inclusive process: it aims to incorporate and reconcile a variety of views from community members, local leaders, government officials, rural institutions, local media and subject matter specialists. The very essence of ComDev is that it is done not only *for* the people but *with* the people.

In fact, the planned use of communication techniques, activities and media creates an opportunity for people to both experience and guide change (Fraser and Villet, 1994). Participatory local communication planning (see Section 1 of Module 4) is certainly the best opportunity to tap whatever potential is in the community to create a sense of inclusion and motivation among the stakeholders. When project stakeholders are involved in planning, they already initiate change at the local level. During the design process, they use their knowledge, experience and insights to ensure that the ComDev plan meets local needs and demands, is effective and culturally appropriate. At best, they will take over the responsibility for decision-making and management of communication activities and services. This has long-term effects and benefits for sustainable development and people's empowerment.

## THE COMDEV PLANNING PROCESS:

Communication planning requires a clearly defined strategy with specific goals, established in advance, and a measurable impact on the intended stakeholders.

The steps in strategic communication planning are nicely captured by the P-process, a framework developed at the Johns Hopkins Bloomberg School of Public Health in 1982. It was successfully applied to design health communication programmes worldwide. The model was revised in 2003 to embed two concepts that are crucial to programme sustainability: participation and capacity strengthening.

### 1. Analysis

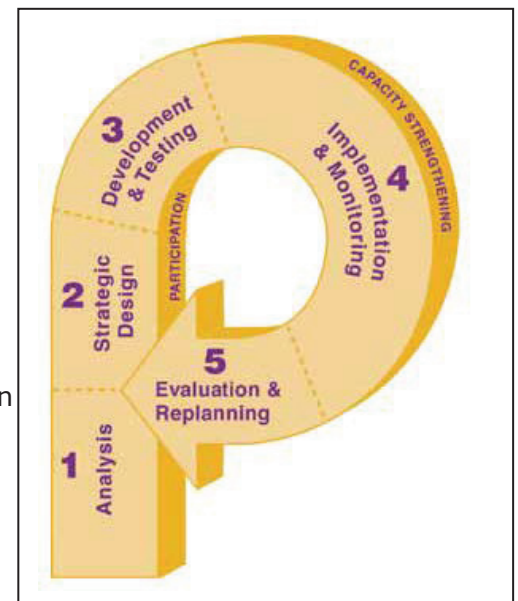
Profile intended stakeholders, existing policies and programmes, active organizations and available communication channels.

### 2. Strategic design

Establish communication objectives; position the concept for the audience; clarify desired behaviour change; select media or channels; draw up an implementation plan; design the evaluation scheme.

### 3. Development and testing

Develop message concepts; pre-test with audience members and gatekeepers; revise and produce messages and materials;



re-test existing materials.

#### 4. Implementation and monitoring

Mobilize key participants; train trainers and field workers; implement the action plan; monitor the processes of dissemination, transmission and reception of programme outputs.

#### 5. Evaluation and re-planning

Measure impact on intended stakeholders and determine how to improve future projects; determine future needs; adjust to changing conditions and plan for continuity and self sufficiency.

The P-process is a suitable reference model for ComDev planning. However, what makes ComDev planning unique is the use of **participatory methods and techniques** to determine the design and contents of the communication activities based on the actual needs, opportunities and constraints of rural stakeholders. A ComDev strategy can be as elaborated or simple as needed, but to be effective it should always derive from the findings of a participatory communication appraisal. Promoting the active involvement of local stakeholders is an element that permeates also the implementation of the ComDev plan: from the design, production and pre-testing of communication materials to other facilitation activities aimed at mobilizing people, consensus and resources. Monitoring efforts run through the entire process to provide inputs for the final evaluation, but also to potentially modify the strategy and plan, based on new information gathered, or new intervening factors.



## CHALLENGES IN RURAL COMMUNICATION:

There are many challenges to communication in rural. Low literacy level; poor media reach and exposure and vast, heterogeneous and diversely spread rural audiences characterized by variations in language, culture and lifestyle-all these factors pose multiple challenges to marketers looking to take their messages to the largely media-dark or media-grey areas, of rural markets.

**Heterogeneity and spread:** The communication pattern in any society is a part of its culture. No communication medium can exist in a cultural vacuum. Communicating the message to rural consumers has posed enormous challenges to the rural marketer, because of the large numbers of consumers scattered across the country. The problem is further compounded by the heterogeneous nature of consumers there are 16 scheduled languages and 114 local vernaculars.

**Limited Media Reach:** The limited reach of the mass media imposes limitations on universal communication to rural consumers. These factors lead to poor message comprehension and negligible impact, which fail to

translate into consumer awareness and hence fail in generating consumer pull.

**Understanding the Rural Audience:** It is not sufficient to understand rural communication challenges as stated above: rather, what is equally crucial is the need to understand the behavioral and psychographic characteristics of the rural audience, in order to develop an effective rural communication strategy.

#### **CREATING ADVERTISEMENTS FOR RURAL AUDIENCES:**

Communication experts need to keep the following factors in mind when creating advertisements for rural audiences.

- \* Understanding the mindset of potential customers, including their hopes, fears, aspirations and apprehension conducting a qualitative study among the target audience would help in better understanding of the consumer mindset.

- \* Pick up 'gems' in the form of idioms, expressions, words, etc. in relation to the product category for later use in the creative.

\* Tricky, clever, gimmicky, or even suggestive advertising does not work with rural audiences. 'Flicks' using very expensive computer graphics without any human presence go over the heads of rural audiences.

\* Combining education with 'entertainment is a good route to take when targeting rural audiences. Using locally popular film stars or even featuring religious events (melas) popular in the region, helps strike a chord with rural audiences. According to a study, it is Govinda and Shahrukh Khan who is most popular among rural folk in north India.

\* 'Quickies' (short television commercials) do not register well with rural audiences. Advertising agencies need to provide for ample time and space to communicate a message properly and effectively to the intended audience. This is seen for instance, in the popularity of the two-minute theatre commercials screened in rural cinemas.

## **RURAL MEDIA:**

Rural media can be classified broadly into conventional mass, non-conventional media and personalized media. The various media vehicles are as follows:

CONVENTIONAL MASS MEDIA	NON-CONVENTIONAL MEDIA	PERSONALIZED MEDIA
Television	Haat and mela	Direct mailer
Radio	Folk media (puppet show, magic show)	Point of sale(demonstration, leaflet)
Press	Video van	Word of mouth
Cinema	Mandi	Interpersonal communication
Outdoor: wall painting, hoarding		Animator

## INOVATIVE MEDIA:

### Outdoor Media: Wall Painting

This medium is the most widespread form of advertising and is the favourite of the Indian rural masses, as they can view it at their leisure. Wall paintings are important because they constantly remind rural people about name and logos in addition to highlighting the key brand promise. They also reflect the vibrant economic and social life of the area.

#### Characteristics of wall paintings

- \* They are economical as compared to other traditional media forms, as the manpower and infrastructure requirements are low.
- \* They can easily be customized in accordance with regional language variations without this impacting their artistic content.

- \* Audience recall rates are high.

### **Limitations**

- \* The lack of availability of wall space at prominent locations is an issue.
- \* The quality of the wall space available is not always satisfactory. The base of rural wall structures is generally not smooth and this impacts the final output.
- \* No exclusive wall rights are given to the company. It may happen that a company gets a wall painted and after sometimes when the company executive passes through, he finds that the painting has been replaced by the advertisement of some other company.
- \* The quality of the painters available is also low. Companies prefer hiring painters locally as they are familiar with the area and the cost of hiring them is lower when compared to the cost of hiring painters from outside.

### **FOLK MEDIA:**

- \* Folk media consist of folk songs, folk dances and other theatrical forms, including puppetry, street theatre and magic shows, which are an intrinsic part of the culture and heritage of the land.

- \* They are capable of communicating message about contemporary issues, topics and concerns as per the needs and demands of a changing society.
- \* They are a face-to-face and personal form of communication.
- \* The essential characteristics of folk media are that are interactive, repetitive and narrative

### **Kinds of Folk Media**

- \* Folk theatre
- \* Magic show
- \* Puppet shows
- \* Interactive games
- \* Folk Theatre

Folk theatre, interspersed with folk song and dance, is a simple and entertaining form of communication. It can also be informative and educational. In the past, folk theatre has been used to arouse public opinion against the British Raj, to draw attention to atrocities against the girl child and raise public consciousness about other socially relevant issues.

- \* **Folk songs:** Folk songs are basically simple and direct compositions that are usually transmitted orally from one generation to the next and not through the written word. The structure of the folk song is characterized by

simplicity and uniformity in rhythm. The songs consist of many stanzas sung in more or less the same tune. Each region and state has its own particular traditions of folk songs and ballads.

\* **Folk Dances:** Folk dances are basically simple and rhythmic and mostly religious in nature. Communication takes place through dramatic gestures and the accompanying music. Folk dances are visually very arresting, attracting audiences with their elaborate costumes and stage settings.

\* **Magic shows:** Magic shows are another very entertaining form of folk entertainment and draw large crowds, particularly because of the curiosity factor and the use of hypnotic effects.

\* **Puppet Shows:** The kathputli puppet performance is the most common form of this folk tradition. The origin of puppet theatre is closely linked to the performance of religious ceremonies. The connection between rituals and the use of puppets is found in almost all the states in India. Traditional puppeteers were mostly itinerant performers who depended on royal patronage for their survival. Even today tales of chivalrous kings like Prithviraj Chauhan and Amar Singh Rathor are narrated through puppet performances in the villages and towns of Rajasthan. The different forms of traditional puppetry are glove, rod, string-rod and shadow puppets. The differences exist not only in name but also in form, structure, manipulation techniques and geographical origin spread.

## CONCLUSION:

We can conclude that a special BOP Marketing Communication Strategy can certainly prove effective in transmitting the message to the BOP segment.

The marketers should be careful

in performing BOP marketing communication exercise to be effective and enjoy the predetermined benefits. Agreeing to the fact that the market is varied in nature, all specific

characteristics must be considered in designing and devising the communication strategies for

BOP markets. Innovation is going to be the key for success. Innovations are expected in media, message design and message execution while attempting to reach the erstwhile neglected markets at the bottom of the pyramid.

Also, it is clear that in any form of rural communication, while we may have a national strategy, we have to think and act locally. The need for focused communication aimed at the rural market, should not be underestimated.

This calls for innovation and substantive changes in marketing strategies and approaches. The innovation should be carried out within the framework of what can best be characterized as the 4-R principle:

\* Relevance



- \* Reliability
- \* Reach
- \* Reincarnate innovation

If the Indian advertising industry is to reach out to rural India in an effective and efficient manner, it has to be grounded firmly in rural perceptions, value and traditions. It has to immerse itself in local colours, customs and modes of communication in order to make itself relevant to the needs and desires of rural society. It has to gain the trust of the masses by undercutting its own excessive dependency on western styles of advertising, on the one hand and on its use of deceptive and manipulative claims, on the other. It has to reach out to rural consumers and relate to them at an appropriate level, so that it can bring about the desired behavioural changes. Finally, it has to find ways to reincarnate innovation. The four components are not mutually exclusive; they share an interdependent relationship.

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**A Study on Problems Faced by Female Child Labor in Unorganized  
Sector of Palladam Taluk in Tirupur District**

J.A.Arul Chellikumar and P. Paramasivam

## **Introduction:**

Child labor in India is to be found in almost every sector of the informal economy. Despite India's fast economic growth since the 1990s, many challenges remain for youth at risk, particularly the girl child. The Indian Girl Child who faces gender discrimination on various levels. Due to her lower status in the society, a girl child laborer is even more deprived. Child labor is still a prevalent issue in India. Gender is a crucial determinant of whether a child engages in labour. While child labour is an infringement of the rights of all children boys and girls alike girls often start working at an earlier age than boys, Girls also tend to do more work in the home than boys. Hence, this study focused on what are the problems faced by female child labor and their socio- economic conditions in Palldam taluk of Tirupur District of Tamilnadu.

## **Child Labour**

All those persons who are engaged in an economic activity between 5-14 years of age, have been taken as the working children.

## **Situation of Girl Child Laborers**

Worldwide domestic and household work is very often not seen as work as such. Also, if a girl helps her mother in the household, it is in most parts unrecognized because home-based work is seen as an unskilled nature with low status. Their lack of educational or vocational training, due to the preference given to boys, blocks their ability to move upward. Because she lacks education, she has less possibility on the labor market and is only relegated to low-paid and unskilled jobs. This vicious cycle is hard to break because the exploited young girl becomes the exploited adult woman who often does not see her work as an economic activity but as under-valued.

The fact sheet of the *Andhra Pradesh Child Rights Advocacy Foundation* (A.P. CRAF) on girl child labour recorded that 246 million children are engaged in child labor worldwide. To say it in other words, one in every six children around the world is doing some kind of work. This number can be broken down into two categories. The first one includes children between the ages of five and fourteen years. 186 million of them are working, often exposed to the worst forms of child labour. 49% of them are girls. Children between the ages of 14 and 18 form the second category and make up 59.2 million child laborers. Out of them, 42% are girls.

### **Significant characteristics of the girl child laborer:**

- Invisible work which is not recognized as an economic activity and which is not under the purview of law
- No identifiable employer
- Home-based work
- Long working hours
- Poor conditions that prevent them from attending school
- No skill formation
- Low pay and low status
- Physical abuse and Sexual Harassment

### **Working Areas of Girl Child Laborers in India**

Over 80% of child laborers are found in the rural sector, whereas only less than 20% are found in the urban sector. The degree of urbanization in India is 27,57%. The rural girl child laborer is generally engaged in agriculture and in household activities as compared to a female urban child laborer, who also works in the informal and unorganised sector, which includes small scale cottage industries and factories. The girl child laborer is

also found in the domestic work and prostitution, in urban and rural areas. Generally girl child laborers work in:

- Dangerous industries, such as glass making, mining, beedi making and carpet weaving,
- Domestic service, which may subject them to physical and sexual abuse, isolation and extremely long working hours,
- The agricultural area, doing heavy work and being exposed to the hazardous conditions of modern machinery and chemicals,
- The streets, working as rack pickers, vendors and as sex workers,
- The export industry of carpets, textiles, clothing and footwear,
- Home, which is generally seen as hidden child labour, not obvious to society, and includes taking care of the younger siblings, doing the household and preparing the food

### **Tirupur District**

Tirupur also known as Kint city of India, Dollar City of India and Textile City of India. Tirupur District one of the Indian state Tamilnadu, formed in February 2009. The district is well developed and industrialized.

### **Palladam Taluk and Textile Industry**

Palladam is a town of tirupur in the state of Tamil Nadu. It is a First grade Municipality in the Tirupur district. It is one of the fastest growing suburb of Coimbatore. Palladam is one among the seven taluks namely Udumalaipattai, Kangeyam, Dharapuram, Palladam, Madathukulam, Tirupur, Avinashi Taluk of Tirupur District. Palladam is a major panchayat with large source of income collected from the business community.

In and around Palladam there are many weaving and knitting centers mostly meant for export to foreign countries, thus earning a considerable foreign exchange. Most of the major textile houses are set up as vertically integrated units enabling them to produce clothing at a better quality and

competitive price. This sector along with the poultry sector provides direct and indirect employment to numerous people in the region. The region also attracts laborers from other part of the nation.

### **Statement of the Problem**

Taking birth as a Girls in the Indian society can be said as curse for the women. Girls in India face lots of social issues and problems all through the life which are big struggle for them right from their beginning of life. Female infanticide is the most common practice of killing girl child in mother 's womb in the Indian society . Another common problem for women is sex discrimination which they face from their birth and continues till their death. Illiteracy , lack of proper education, responsible for household works, rape, sexual harassment at workplace, etc.

Hence, This study focus on Problems faced by female child labor.

### **Research Methodology**

The present study taken up in Palladam city of Tirupur district. The study mainly based on primary survey. 20 female child labor were interviewed through structured interview schedule. Percentage analysis used for getting the result.

### **Objectives of the study**

1. To study Socio-Economic conditions of the Female Child Labor in the Study Area.
2. To find main cause for female child became a labor.
3. To find Problem Faced by female Child Labor.

### **Problems Faced by Female Child labor in Palladam Taluk**

The empirical evidence attained from the statistical analyze are presented and discussed on socio economic conditions of female child labor and what are the problems faced by female child labor in Palladam taluk of Tirupur District.

The study was conducted using well structured interview schedule.

### **Table No: 1 Age wise distribution of Sample Respondents**

To understand the age of the sample respondents, data were collected and presented in the following table. The age of the sample respondents were classified under different categories as 6 – 10 Years and 11- 14 years.

<b>S. No</b>	<b>Particlulars</b>	<b>No. of Respondents</b>	<b>Percent(%)</b>
1	6-10 Years	1	5%
2	11-14 Years	19	95%
3	Total	20	100%

*Source: Primary Survey*

From the above table is inferred that majority of the respondents that is 95 percent belonging to the age group of 11 to 14 years and 5 percent of the respondents belonging to 6 – 10 years.

### **Table No:2 Religion Details of the Sample Respondents**

Background information of the sample in terms of the distribution of sample by religion is presented in the following table.

<b>S.No</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percent(%)</b>
1	Hindu	13	65%
2	Christian	6	30%



3	Muslim	1	5%
4	Total	20	100%

*Source: Primary Survey*

From the above table it is inferred that majority of the respondents that is 65 percent belonging to the Hindu Religion and Remaining 30 percent is belonging to Christian and 5 percent of the sample respondents belonging to Muslim Religion.

### **Table: 3 Social Background of the Sample Respondents**

Social Background of the sample Respondents presented in following table.

<b>S.No</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percent(%)</b>
1	SC/ST	10	50%
2	MBC	4	20%
3	BC	3	15%
4	Others	3	15%
5	Total	20	100%

*Source: Primary Survey*

The above table shows majority of the sample respondents that is 50 percent belonging to SC/ST. Remaining 20 percent belonging to MBC, 15 percent Belonging to BC and 15 percent belonging to other categories.

### Table No:4 Type of Working Company

Following table shows Female Child Labor working in the type of company.

S. No	Particulars	No. of Respondents	Percent(%)
1	Banian Company	13	65%
2	Power Loom	4	20%
3	Thread Company	2	10%
4	Others	1	5%
5	Total	20	100%

Source: Primary Survey

From the above table is inferred that majority of the sample respondents were engaged in Banian Company work that is 65 percent. Remaining 20 percent were engaged in Power loom, 10 percent engaged in Thread Company and 5 percent were other works.

### Table No:5 Type of Work

Following table Mentioned Type of work

S.No	Particulars	No. of Respondents	Percent(%)
1	Assistant	6	30%
2	Checking	9	45%
3	Packing	4	20%
4	Others	1	5%

5	Total	20	100%
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*Source: Primary Survey*

From the above table shown majority of the female child workers that are 45 percent engaged in checking work in textile industries. Remaining 30 percent were engaged in Assistants, 20 percent were Packing and 5 percent of the sample respondents were other work.

### **Table No:6 Nature of Family**

The following table shows the details about nature of the family

<b>S.No</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percent(%)</b>
1	Joint Family	2	10%
2	Nuclear	18	90%
3	Total	20	100%

*Source: Primary Survey*

From the above table shown majority of the sample respondents belonging to Nuclear family that is 90 percent. Remaining 10 percent of the sample respondents belonging to joint family.

### **Table No:7 Details of Weakly Income**

The Weakly Income of the sample respondents is analyzed under 2 Categories 501-700 and 701- 1000.

<b>S.No</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percent(%)</b>
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1	501-700	13	65%
2	701-1000	7	35%
3	Total	20	100%

*Source: Primary Survey*

The above table shows the weakly income of the sample respondents. Majority of the sample respondents earn up to 700 Rs per week that is 65 percent. Remaining 35 percent of the sample respondents earn up to 1000 Rs per week.

### **Table No: 8 Main Cause for Female Child Became a Labor**

The main cause for Female child became a labor shown in following table.

<b>S.No</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percent(%)</b>
1	No Father	2	10%
2	No Mother	4	20%
3	Economically Poor	13	65%
4	Other	1	5%
5	Total	20	100%

*Source: Primary Survey*

From the above table inferred that Majority of the female child became a labor is the are economically poor that is 65 per cent. Remaining 20 percent of the female child did not have mother as well as 10 percent of the female child not having father. Because father or mother were died. Remaining 5 percent of the sample respondent has other reason.

### Table No:9 Details of Respondents Father Drinking Habit

Following table shows Details of Respondents Father having Drinking habit

<b>S.No</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percent(%)</b>
1	Father Having Drinking Habit	18	90%
2	Father Not Having Drinking Habit	2	10%
3	Total	20	100%

*Source: Primary Survey*

Above table inferred that 90 percent of the respondents Fathers having drinking habit. Remaining 10 percent of the respondents not having drinking habit. This is clearly shows that one of the another main cause for female child become a labor is father having drinking habit.

### Table No: 10 Main Problems Faced at Work Place

Following table shown Main Problem Faced by female child worker in the work place.

<b>S.No</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percent(%)</b>
1	No Rest	6	30%

	Time		
2	Night Shift	13	65%
3	Others	1	5%
4	Total	20	100%

*Source: Primary Survey*

From the above table observed that 65 percent of the sample respondents faced main problem in work place is Night shift. 30 percent of the respondents not having rest time in work place. Remaining 5 per cent of the sample respondents have other type of problems.

### **Major Findings of the Study**

1. Majority of the Female Child workers that is 95 percent belonging to the age group of 11 to 14 years.
2. 65 percent of the Female child workers belonging to Hindu Religion.
3. 50 percent of the Female Child workers belonging to SC/ST.
4. 65 percent of the female child workers engaged in unorganized banian companies. In that Banian companies they are engaged in checking work that is 45 per cent.
5. 65 percent of the female child worker earning up to 700 Rs per week.
6. 65 percent of the female child became a labor is economically poor.
7. 65 percent of the female child main problem in working place is night shift and continues work.

### **Conclusion**

Palladam is a town of tirupur in the state of Tamil Nadu., It is a First grade Municipality in the Tirupur district. It is one of the fastest growing suburb of Coimbatore. Majority of the female child became a labor because economically poor. The study mainly found the socio economic conditions and problems faced by female child labor in palladam taluk.

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## **Monetary Policy in India and the U.S.: Is the Taylor Rule Irrelevant?**

Prof. Bansi Sawhney,  
Department of Economics  
University of Baltimore  
Baltimore, MD 20221  
bsawhney@ubalt.edu

Prof. Kishore G. Kulkarni  
Department of Economics  
Metropolitan State University of Denver  
CB 77, P. O. Box 173362  
Denver, CO 80217-3362  
kulkarnk@msudenver.edu

Prof. Nicolas Cachanosky  
Department of Economics  
Metropolitan State University of Denver  
CB 77, P. O. Box 173362  
Denver, CO 80217-3362  
ncachano@msudenver.edu

## Abstract

The present paper is about the monetary policy mechanism and transmission process as it relates to the economies of India and the U.S. While a vast amount of literature exists on monetary policy transmission mechanism in developed capitalistic countries, no distinct treatment is available for developing countries such as India. There are obvious limitations for monetary theory applied to countries such as India compared to a developed country such as the U.S. Most well-known amongst these limitations, is the dilemma embarked by the dichotomy of monetary versus non-monetary sectors of the Indian economy. The rural sector of the Indian economy, where majority of the population lives, is still dominated by private money lenders and by several other crude financial institutions. This financially under-privileged sector persists along with the financially well-developed urban sector where online transactions are common and almost all modern financing facilities are available. The case for "rule versus discretion" merits renewed discussion in monetary policy making both in India and the U.S. The paper argues that there is no deliberate or implicit application of any rule, such as the Taylor rule in India. In the U.S. the Federal Reserve in 1990 to 2001 period has supposedly followed the Taylor Rule. However, since the financial crisis of 2008, there has been no change in the discount rate and the focus is more

on the quantitative easing (QE). The Taylor rule is not only out of fashion but also has become irrelevant. This paper attempts to show that the Taylor rule does not help in explaining contemporary monetary policy behavior in either country.

Keywords: Monetary Policy; India and the U.S.; the Taylor rule.

## Introduction

In recent monetary policy steps, there has been a serious question of monetary policy independence as it is practiced by the Reserve Bank of India (RBI hereafter) and even by the Federal Reserve System (FRS hereafter). The RBI lowered its benchmark interest rate to 7.75 % on January 15, 2015 followed by a further cut by 0.25 percentage point on March 4, 2015. What was the real reason for this important policy change? Was this surprise cut in interest rate based on lower than expected inflation which dropped to 5 % in December? Or any other reason. There was no explanation given by the authorities. The RBI's latest press release states that its goal is to reduce inflation to 4% by 2016-17 and in subsequent years (incidentally, Mr. Jaitley, the Finance Minister, referred to this rate of 4% in his budget speech as well). One can raise the question of "independence" of the RBI as proclaimed by Raghuram Rajan, the Governor of RBI. In essence, the RBI policy making does appear to be heavily influenced by the Finance Ministry. At the same time that Mr. Rajan strives to achieve a 4% inflation rate, he is committed to providing for a real interest rate in the range of 1.5% and 2.0%. This suggests that nominal interest rate target has to be around 6 %. The RBI's goal of simultaneously achieving both the 4% inflation and about 2% real rate of return will prove to be quite challenging. Not surprisingly, in its defense, the RBI has already

indicated that it will seek a 2% percentage point flexibility in either direction.

These policy targets raise a serious question about the selection of a policy instrument by the RBI since it does not seem to have a particular theory to follow and get guided by it. Should the RBI become "data dependent" and follow the Fed's model in the U.S. or explain its policy based on any macroeconomics model? Thus far the RBI has been aiming on multiple goals such as the interest rates, economic growth, exchange rates and liquidity creation.

Although Rajan's success on all counts, especially lowering the inflation rate is admirable, it leaves serious doubt about the continued success in the near future. It appears that the current success of lowering inflation rate is more of a matter of luck (lower commodity prices, especially oil prices that contributed to lower inflation) than of a sound monetary policy based on any theoretical model. In this paper we study whether or not the RBI uses (or has ever used) the Taylor rule as guide to its monetary policy. The RBI's goal of price stability and interest rate stability is supposed to go hand in hand and the Taylor Rule encompasses both. It incorporates real as well as monetary variables, more specifically, the Taylor Rule hypothesizes that the interest rate adjustment is dependent upon the difference between potential GDP and actual GDP and the difference between expected

and actual rates in the given year. In essence, it treats interest rate change as the main policy instrument and money supply level as the secondary policy instrument.

In the U.S. the Fed has practiced a policy of near zero interest rate since the financial crisis of 2008. Incidentally, that is what the Taylor Rule prescribes for the years after the crisis (Figure 2). Some policy makers are not convinced about its importance and we also believe that in the case of India as well as in USA, the Taylor rule may not have proved to be a dependable guide. In this paper, we propose to investigate whether the behavior of the RBI and FRS's monetary policy making is consistent with the prescribed rule.

This paper is organized as follows: Section 2 carries out the literature survey of the Taylor Rule and the theoretical under-currents it contains. Section 3 applies the Taylor Rule to the monetary policies of Reserve Bank of India's and the Federal Reserve Bank of the U.S. in practice. It also explains the use of statistical analysis and exhibit important graphs and charts further providing validation to our arguments. Section 4 includes the summary and conclusions.

## II. Theoretical Background and Relevant Literature

Theoretically the monetary transmission mechanism can be summarized in a historical perspective. The very first and celebrated transmission mechanism for monetary policy effectiveness was analyzed by Irving Fisher in his old quantity theory of money which used the equation of exchange as follows:

1) 
$$MV = PY$$

As is very popular in any monetary economics textbooks, Fisher expected the velocity of money ( $V$ ) [which he defined as the number of times one unit of money completes the circular flow in a given time period] to be a constant term. This is because he assumed that  $V$  is mainly decided by some psychological factors such as the habits of public in making transactions. If people make more cash transactions, Fisher expected  $V$  to be higher. He further argued that these habits do not change in the short run, so there is no reason for  $V$  to change in the short-run. Similarly following the classical economists' tradition of asserting that economy always produces full employment, Fisher expected the real GDP or  $Y$  in the above equation [which was supposed to be the predictor of total transactions of buying and selling in the economy] to be a constant term. With  $V$  and  $Y$  to be constant, Fisher and his quantity theory concluded that any increase in money

supply ( $M$ ) would lead to an equi-proportionate increase in general price level ( $P$ ). Thus we got the first argument for the “transmission mechanism of monetary policy” which essentially concluded that excessive increase in money supply only leads to high inflation and therefore it was thought to be not only unnecessary but also quite harmful for the economy. Since its development in 1905, the quantity theory of money dominated the policy making until the late 1930s, when the theory was severely criticised by John M. Keynes and other Cambridge economists. Of course the main criticisms of quantity theory argument arose from the naïve belief that  $V$  and  $Y$  would be constant in any economy. As Great Depression years witnessed, the real GDP can decline substantially for a long period of time, plus velocity does not have to be constant if people use money for hoarding (saving, or store of value) purposes too.

The second major explanation of transmission mechanism was provided by Keynes himself in his famous work, *General Theory of Employment, Interest and Money* (1936). This explanation floods the principles of macro textbooks and envisions a chain of events after an increase in money supply. In fact, as against the popular belief of classical economists that money cannot make changes in real GDP, Keynes argued that increase in money supply can in fact, lead to increase in real GDP by initially reducing the interest rate ( $r$ ) and then



increasing real domestic gross investment (I). Thus, important to Keynes and to his umpteen followers (Keynesians) was the popular chain of event (sometimes referred to as the Keynesian Chain) that can be summarized as follows: As increase in money supply would make more credit available and banks will be forced to lower the interest rate. This lower interest rate will then increase the expected rate of returns from the use of the machine (or Marginal Efficiency of Capital, MEC). Producers then would not hesitate borrowing from the banks and buy more machine tools and equipment and to increase the construction activities. These activities, being a major part of real Investment, would increase the gross domestic real investment (I) and will start the famous Keynesian expenditure multiplier process. Hence the Keynesians would argue that an Increase in investment, via multiplier process would further increase the real GDP. Thus the effectiveness of monetary policy to Keynesians, was much clear and direct due to this chain, than it was to Fisher.

Then again, one other famous quotations of Keynes has been to say "Money does not matter". In other words, this implies that money supply cannot increase real GDP (and therefore does not matter). This, however, is relevant only in the unique case of liquidity trap. Liquidity trap is a special situation in the money market in which interest rate goes so low that any future expected interest rate is definitely higher

(and bond price is definitely lower). When the present interest rate is already low and the expected future interest rate definitely higher, then it is unworthy to buy bonds. In liquidity trap, therefore, the demand for bonds becomes close to zero and demand for money becomes close to infinity. In liquidity trap, any increase in money supply ends up being hoarded by the people creating no change in interest rate and therefore the above Keynesian chain explanation breaks down.

Thus the Keynesian advice was clear that money supply increase has the ability to raise the real GDP, but (only) in case of liquidity trap it is true that "money does not matter". Monetary policy is therefore subordinate or secondary to fiscal policy which has no such limit to its effectiveness. According to Keynes and Keynesians (contrary to the advice of Fisherian quantity theory) there is no fear in raising money supply when interest rate is high because bringing the interest rate down (and pegging it at the minimum level) should be the objective of any rational monetary policy. No wonder then monetary policies all over the world, and especially in the U.S., raised the money supply tremendously when Keynesian advice was dominant in 1940s- 1960s. The problem arose when in late 1960s when two important developments occurred. First the tremendous increase in money supply increased the price levels and, second, a group of economists

from the University of Chicago, led by Milton Friedman, also known as the monetarists, started challenging the Keynesian advice that (in liquidity trap,) money does not matter.

Thanks to the magnificent theoretical work of Friedman (see 1956 and 1966 in bibliography), supported by empirical observations everywhere, that increases in money supply have led to increases in prices, we started seeing new arguments about monetary policy making. Friedman started arguing circa 1960 that, just because the tremendous increase in money supply of the last 30 years has raised prices, by now completely forgotten (and discarded), Fisherian quantity theory of money was not a bad theory after all. One of the most significant contributions of Friedman was to revise the quantity theory of money argument and show that velocity of money is a stable function of price level and real GDP. He further concluded that since both of these determinants of  $V$  are somewhat stable,  $V$  is also stable. In that case one can easily see that the money supply ( $M$ ), by using quantity theory equation, does have an ability to change either price level ( $P$ ) or real GDP ( $Y$ ) or both  $P$  and  $Y$ . Monetarists therefore showed that "Money does matter" and it is wrong to argue that monetary policy is secondary to fiscal policy. Moreover, Friedman by showing different effects with increase in money supply proved the possibility of higher (instead of lower as Keynesians were sure of) interest rate. In

the 1970s, the U.S. and Indian money supply grew tremendously but both economies experienced higher interest rates, a phenomenon that monetarists could easily envision, but Keynesians were confused about.

Out came the monetary policy prescription by monetarists, namely, excessive increase in money supply is completely unacceptable as a policy option, better yet is the obedience of some kind of monetary rule (which will dictate monetary stability). The contemporary argument of inflation targeting is a by-product of this monetarists' belief.

So we are left with the Great Debate, since the 1970s, that implies that monetary policy should use its own "discretion" in changing money supply (of course supported by Keynesians and Neo-Keynesians) or follow the "rules" that dictate a stability of money supply irrespective of anything. The Federal Reserve, when headed by a strong Monetarist, Paul Volcker, tried to keep money supply under strict control in 1979 to 1982 duration (sometimes called the monetarist experiment) quickly gave it up after 1982 as interest rates sky-rocketed and economy went into a severe recession in 1982. Since 1982 there has been no clear indication of which way the Federal Reserve policy making is tilted. In fact, since 1987 when Allan Greenspan became the Federal Reserve Board Chairman, things

became so obscure that economic agents had to come up with several predictors of monetary policy behaviour. One such predictor was the theory that explained people inflationary expectations formation and the advised expectations control. Hence according to the expectations hypothesis, as long policy makers control people's expectations, their actions can be effective in changing the real GDP.

History shows that 1980s were dominated with this kind of Federal Reserve as well as Reserve Bank of India's behaviour. Second, there was a prediction that Federal Reserve should keep in mind "inflation targeting" and change money supply accordingly. While 1990s were full of incidences that support this behaviour, even if in modern times it is a suspect. In fact, recently (August 2014) as the RBI's Governor indicated that changes in interest rates should take place regardless of the inflationary situation. In 1990s, the Federal Reserve as well as RBI found a more suitable instrument of money supply management in changing the interest rate. Since 1991 up to 2006 Federal Reserve has changed the discount rate (Rate charged by Federal Reserve Banks to the Financial Institutions (hereafter FIS)) seven times a year. In 1990s and 2000s we were sure that interest rate change was the most popular instrument and inflation was the most important target to both US and Indian monetary policy makers. A classic example of this

international belief that inflation targeting is important is included in Bernanke et.al (1999).

The latest attempt to predict monetary policy behaviour is the pioneering work of John Taylor in proposing the equation for targeted interest rate (Federal Funds Rate, the rate charged by one Financial Institution (FI) for its loan to other FI) by the Federal Reserve. This equation has come to be known as the "Taylor Rule" of monetary policy. In its classic form is summarized as:

$$2) \quad i_t = r_t + \pi_t + \frac{1}{2}(\pi_t - \pi_t^*) + \frac{1}{2}(y_t - \hat{y}_t)$$

Where  $i_t$  is a short-term nominal interest rate such as the Federal Funds rate,  $r_t$  is the real interest rate,  $\pi_t$  is the inflation rate,  $\pi_t^*$  is the inflation rate target,  $y$  is the log of real GDP, and  $\hat{y}_t$  is the potential output. In short, Taylor rule in its classic form extends Fisher's equation by adding two correctors when there is disequilibrium in the form of inflation or output gaps.

The main question was, whether or not did the Federal Reserve make changes in Federal Funds rate based on this Taylor Rule? The answer at best is the mixture of Yes and No. Until 2001 Taylor rule idea did somewhat satisfactory job even if deviations of major degree did occur in periods 2002 onwards. The real blow to the Taylor rule which kind of

wiped out the whole concept, has been the start of financial crisis in 2008 and onwards. The Federal Reserve reacted to the crisis by taking the interest rate to a very low level (as low as .25% for the Federal funds rate target) and keeping it there until now (2014). For the last 6 years, therefore, there is no change in targeted federal funds rate. In fact, the quantitative easing attempts of 2009, 2010 and 2012 onwards have only brought back the money supply change as the major instrument of active monetary policy. In our paper therefore it will be interesting to see the relationship between money supply and interest rate, interest rate and investment, money supply and real GDP (income effect) and money supply and prices (Price effect) for the period when no single theory was tremendously dominant. The behaviour of the monetary policy makers in last 15 years is guided by their vision of how the economy is doing and what policy change is warranted rather than by prescription of any theoretical philosophy.

In a long, but exciting article, Malik and Ahmed (2010) consider the application of Taylor rule to the monetary policy making in Pakistan. Their graph of actual and Taylor Rule induced interest rates shows similar pattern but a strong series of deviations in the period from 1991 to 2006. They attempt in many different ways to compromise the deviations but most of their explanations are found to be in practical problems encountered by Pakistani economy rather than theoretical.

They conclude as follows: "One of the important findings of this study is that monetary policy has been generally conducted through discretionary measures rather than adopting a rule." They however do not blame the rule instead argue that "Commitment to the Taylor-type rule would have significantly improved macroeconomic performance".

We could not have disagreed more with this conclusion.

Instead they could have rightly concluded that Taylor rule is a theoretical brainchild of an imaginary policy guide without much relevance to the realistic behavior of any monetary policy either in a developed country such as the U.S. or a developing country such as Pakistan. In this paper we intend to do that after discussing the behavior of the Reserve Bank of India's monetary policy.

Virmani (2001) is another useful but somewhat outdated study of the relevance of the Taylor Rule. In a short but applied paper he tests the Taylor rule application to Indian economy.

### **III. The Taylor Rule and the Monetary Policy Making**

#### **A. The Recent American Experience:**

The original paper by John Taylor (1993) was essentially to explain the behavior of the Federal Reserve's monetary policy in the U.S. since the 1980's. Thus its initial objective was to examine whether or not a



simple equation incorporating the twin goals of maximum employment and price stability can explain the Fed's policy.

While the Taylor rule does indeed explain the performance of the Fed and was primarily descriptive in nature, subsequent studies by John Taylor and several other economists at the Fed assigned it a prescriptive role and by the 1990's it had become integrated into all policy deliberations. The Taylor rule was modified further and with two objectives in mind: first, to explain how monetary policy was set in the past, and second, how should it be set in the future.

Assuming that the real ex-post rate of interest is two percent (2%), the Taylor rule entails the federal funds rate according to whether or not the inflation rate and the output rates are on target.

While some have claimed that the Taylor rule has revolutionized the way the monetary policy is formulated and also suggest that the Taylor rule should be incorporated in macroeconomic models; others have expressed serious reservations in accepting that the policy can solely be depended on the simple rule. According to them, the simple rules are unlikely to be optimal since they may not be able to capture all of the important factors that influence monetary policy.

The Taylor rule, however, did become prominent in the U. S. monetary policy deliberations up to the mid 1990's. In 1998, however, the FOMC (Federal Open Market Committee) became concerned on the outcome

of the zero bound nominal interest rates. This concern necessitated adjustments to the Taylor rule. In the presence of a significant downward trend on interest rates, one alternative suggested was to increase the coefficients on the inflation rate and the output gap. Again in 2002, this issue was raised once again at the FOMC meetings and it was strongly suggested that alternative models can provide additional information in policy making. It was also realized that in the Taylor rule type models, evidence suggests that the federal funds rate is highly sensitive to how inflation and output rates are measured. As expected, the Taylor's rule recommendation differed a great deal when compared to alternative models such as the FRS/US.

Again in 2003 – 2006, the policy deviated from the Taylor rule. The federal funds rate was kept well below what the rule suggested in order to off-set incipient deflationary environment. John Taylor, however, criticized this easy monetary policy and pointed to the surge in housing demand and house price inflation as a direct result of the policy. During the great recessions of 2008 – 2009, the forward-looking Taylor rule implied a federal funds rate as low as negative 5 percent (-5%). The original 1993 Taylor rule, however, suggested federal funds rate close to zero (0). Ben Bernanke pointed out that since 2011, according to the Taylor rule the Fed's policy was "too easy". Taylor rule would suggest the interest rate somewhere between

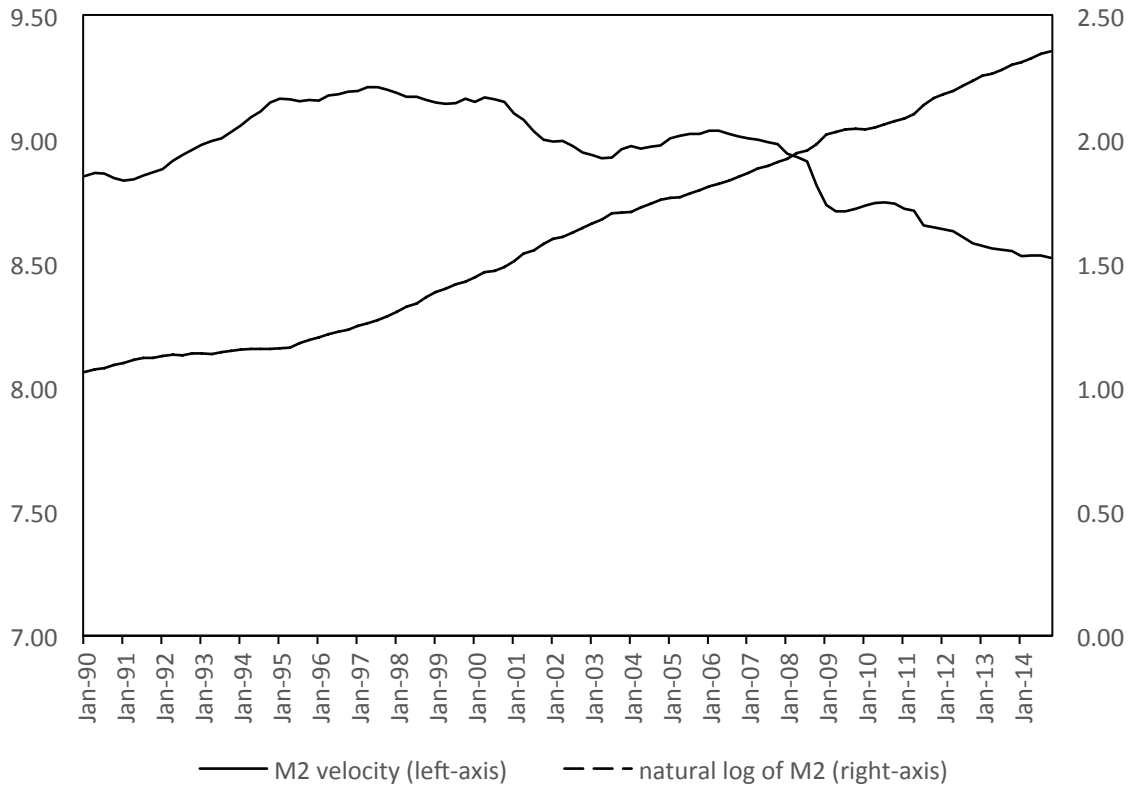
1% and 2%. He firmly believed that the Taylor rule doesn't provide any policy guidance when the predictive rate is negative.

To fight great recession, policy makers would have favored negative interest rate but the federal funds rate could not fall below zero and therefore, the Fed resorted to the policy of quantitative easing. The policy makers became disenchanted with the Taylor rule and pointed out the weakness of the rule. In particular, it was mentioned that the output gap and the real equilibrium interest rates are not observable and their estimation is a real complicated task. The Taylor rule is not strictly implementable on theoretical as well as operational grounds. According to Ben Bernanke, monetary policy making is quite complex, particularly in a dynamic economy such as the U.S.

It may be argued that in the presence of zero interest rate bound, the Taylor rule is dead. Bernanke, however, suggest that some variant of the Taylor rule may still be considered as one of the inputs in monetary policy decision process. In the end, however, Bernanke's position is against the adoption of a rule. He states that, "the adoption of the original Taylor rule would disguise the complexity of the underlying judgements that FOMC members continually make if they are to make good policy decisions. Monetary policy should be systematic, not automatic." He further states, "I don't think we will be replacing the FOMC with robots anytime soon, I certainly hope not."

The recent growth in money supply in U.S. economy has created many confusing consequences. While the Quantitative Easing (QE) attempts since 2009 have made unprecedented increase in US money supply, the result of expected inflation has not materialized in 2014. In fact, the link between price level and money supply has become spurious in nature. This is a direct challenge to monetarism but may be in the long run many economists are expecting QE attempts to create more harm than good. Moreover, the QE attempts have not really made too many change in M2 money supply. In other words, the U.S. base money had the unprecedented increase, but not money aggregates like M2. This is partly because, the Fed's policy lowers  $V$  by paying interest on reserves, and therefore  $MV$  does not grow as fast as the base money. Figure 1 shows the U.S. natural log of M2 and its velocity for the period 1990 – 2014.

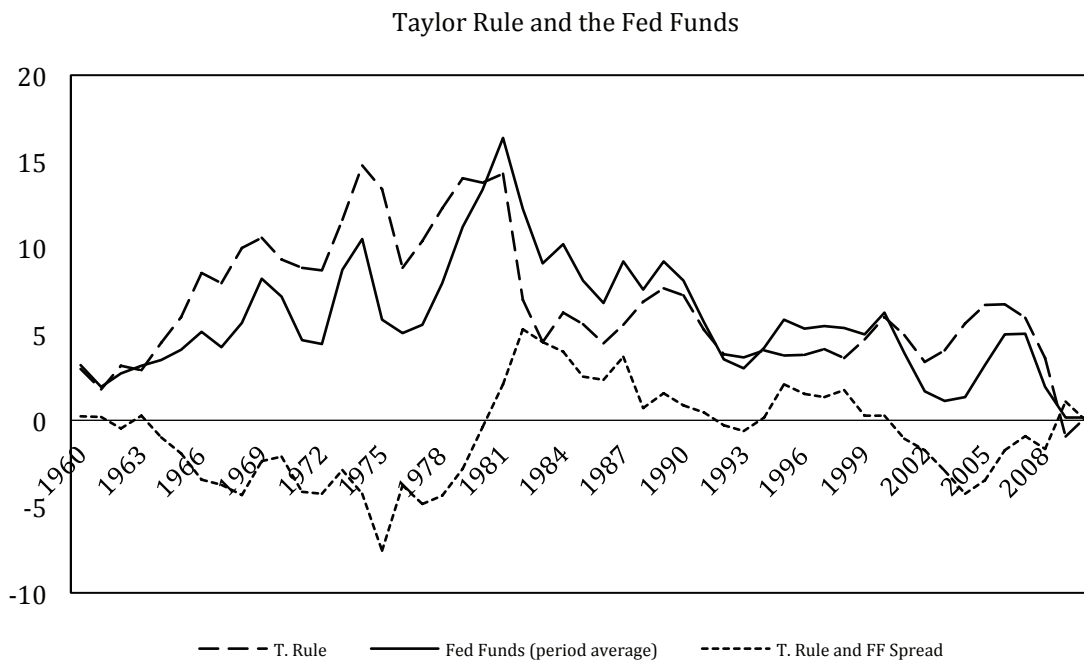
**Figure 1. Natural log of M2 and M2 velocity, U.S., 1990 - 2014**



Source: St. Louis FRED ®

Figure 2 depicts the Taylor rule, the Federal funds rate, and the spread between these two series for the period 1960 – 2010. A spread is observed between 2001 and 2008.

**Figure 2. Taylor rule, Federal funds rate, and Taylor rule – Federal funds rate spread**



Source: St. Louis FRED ® and calculations by the author

## B. The Indian Experience

Close scrutiny of RBI does not support the Taylor rule as a valid tool to explain monetary policy in India since 2000. At first sight the short term interest rate seems to follow Taylor's rule (figure 3), but closer scrutiny casts doubt on the Taylor rule being the informing rule of the RBI.

**Figure 3: Short term nominal interest rate and Taylor rule for India**



The Taylor rule is constructed with (1) quarterly data, (2) CPI inflation, (3) the real interest rate is the difference between the nominal interest rate and inflation, (4) output gap is calculated by applying the HP filter to the GDP series, (5) and we assume an annual inflation rate target of 4%. However, because the real interest rate is calculated from *observed* interest and inflation rates, it is expected that both series will look similar. If we estimate the inflation target that would minimize the sum of squared errors between the nominal interest rate and Taylor rule's prescription, then the inflation target should be a

significantly high 106.96% annually. This suggests that the Taylor rule is not informing the IRB.

A closer scrutiny should observe changes in interest rates as inflation and output gap changes. To do this we rewrite Taylor rule in the following way:

$$3) \quad i_t = \beta_0 + \beta_1 \cdot \pi_t + \beta_2 \cdot (y_t - \hat{y}_t)$$

Where  $\beta_0 = r_t + \pi_t - \frac{1}{2}\pi_t^*$ ,  $\beta_1 = 1 + \frac{1}{2}$ , and  $\beta_2 = \frac{1}{2}$ . According to this representation, it is expected for the nominal interest rate to move in the same direction than inflation and the output gap. The inflation rate series depicts seasonality (see figure 2). It is feasible, then, that the RBI follows a seasonally adjusted (SA) inflation series instead of the non-seasonally adjusted (NSA) series. Therefore, we work with both, a SA and the NSA inflation series.<sup>1</sup> Table 1 show the contemporaneous and one quarter lagged correlation ( $\rho$ ) between the interest rate and NSA inflation ( $\pi$ ), SA inflation ( $\tilde{\pi}$ ), and output gap ( $\dot{y}$ ).

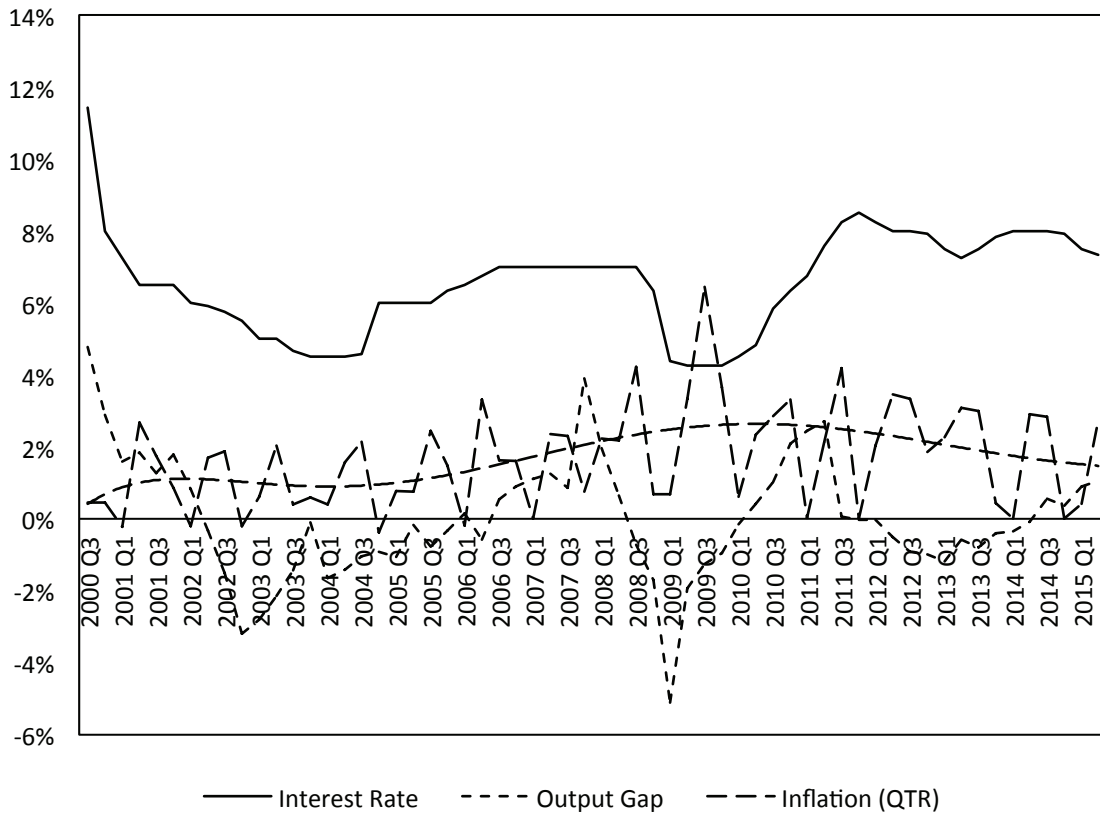
**Table 1: Correlation between the nominal interest rate and inflation and output gap.**

$\rho(i_t, \pi_t) = -0.05$	$\rho(i_t, \pi_{t-1}) = 0.05$
$\rho(i_t, \tilde{\pi}_t) = 0.17$	$\rho(i_t, \tilde{\pi}_{t-1}) = 0.32$
$\rho(i_t, \dot{y}_t) = 0.56$	$\rho(i_t, \dot{y}_{t-1}) = 0.54$

<sup>1</sup> The SA series is 6<sup>th</sup> degree exponential smoothed NSA series.



Correlation values suggest that the RBI pays more attention to output gap than inflation. In term of the latter, the SA inflation series seems to be more relevant than the NSA series. The NSA inflation series has a standard deviation of 1.40%, similar to the output gap standard deviation of 1.65%. The SA inflation series has a standard deviation of 0.62% which can explain the lower correlation between interest rates and inflation with respect to the correlation between interest rates and output gap because output gap requires more adjustments to the interest rate than inflation. Figure 4 shows the nominal interest rate, the output gap, and the NSA and SA inflation rate.

**Figure 4: Nominal interest rate, output gap, and inflation**

The graph depicts that interest rate follows closer movements of the output gap than SA inflation. After 2011, however, it is unclear if the interest rate is following or not movements in the output gap. If we observe the first quarter of 2009 output gap and inflation move in opposite directions. In an AD-AS framework, the fall in output and the rise in inflation suggests a negative AS shock instead of a negative AD shock in which case the Taylor rule has no definite prescription regarding which way the interest rate should move. However, the

sharp fall in interest rate suggests RBI is not paying much attention to inflation, or that it has an unrealistic high inflation target.

The data shown so far offers a weak support for the interpretation that RBI is following Taylor rule. A more robust analysis consists in running a regression based on equation 3 to estimate values for  $\beta_1$  and  $\beta_2$ .

Table 2 shows six regressions. The first one includes the contemporaneous effects of inflation and output gap. The second regression adds a quarter lag for inflation and output gap to account for a delayed reaction of RBI to economic data. Regressions three and four add dummy variables to control for quarter seasonality.

Regressions five and six replace SA inflation for NSA inflation series in regressions 1 and 2.

Regressions in Table 2 neither show strong support for Taylor rule being a good fit for RBI's monetary policy. Note, first, that coefficients are not consistently statistically different than zero. Second, output gap coefficients are not consistently in the ballpark of the expected value of 0.5. This includes the addition of the contemporaneous and lagged coefficients. Third, the inflation coefficient also falls outside the ballpark of the expected value of 1.50. The only exception is regression number six. The addition of these two inflation coefficients equals 0.492. This model, however, shows coefficient values that are too high in absolute terms and is also the regression which residuals

deviate more from the normal distribution. The six regressions presented in table 2 do not show strong support in favour of the Taylor rule being the guide of IRB's monetary policy.

**Table 2. Taylor rule regression models**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	0.0657* ** (0.0024 )	0.0632* ** (0.0027 )	0.0634* ** (0.0032 )	0.0625* ** (0.0033 )	0.0597* ** (0.0043 )	0.05635* ** (0.0032)
Output gap	0.4651* ** (0.0926 )	0.0983 (0.1412 )	0.4610* ** (0.0953 )	0.0819 (0.1501 )	0.4629* ** (0.0907 )	0.0507 (0.1110)
NSA Inflation	-0.0073 (0.1095 )	0.0212 (0.1020 )		0.0269 (0.1414 )		
Output gap (-1)		0.3407* ** (0.1320 )		0.3541 ** (0.1400 )		0.3001** * (0.1033)
NSA Inflation (-1)		0.0812 (0.1021 )		0.0799 (0.1377 )		
Dummy Q2			-0.0006 (0.0051 )	0.0011 (0.0050 )		
Dummy Q3			0.0033 (0.0053 )	-0.0002 (0.0052 )		
Dummy Q3			0.0006 (0.0045 )	0.0014 (0.0047 )		
SA Inflation					0.3453 (0.2426 )	- 8.5248** * (1.7221)

SA						9.0400**
Inflatio						*
n (-1)						(1.7164)
Schwar	-	-	-	-	-	-
tz	-	-	-	-	-	-
criterio	352.944	351.360	341.567	339.360	355.035	380.2670
n	7	8	4	4	0	
Akaike	-	-	-	-	-	-
criterio	359.227	361.748	354.133	355.980	361.318	390.6547
n	7	5	5	7	0	
Hanna	-	-	-	-	-	-
n-	356.770	357.693	349.218	349.492	358.860	386.5998
Quinn	1	6	2	8	4	

Numbers in parenthesis are standard deviations.

Regression results can be compared to Taylor rule as shown in equation number 3. Namely, we can compare an Indian Taylor rule with the reaction functions estimated by the regressions. This is shown in table 3. It can be seen that even if taking all coefficients as statistically significant their values do not match a prescribed Taylor rule for India. For  $\beta_0$  we assume an inflation target of 4%. For the real interest rate we calculate the average and subtract/add one standard deviation giving a range of values for  $\beta_0$ . For models with more than one inflation or output gap coefficient (when there is a lag included) we use the average of both coefficients (even if we add these coefficients their values do not match India's Taylor rule.)

Table 3. Taylor rule and estimated reaction function by the RBI

	Taylor rule	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
$\beta_0$	6.86% - 10.90%	0.07	0.06	0.06	0.06	0.06	0.06
$\beta_1$	1.50	-0.01	0.05	-	0.05	0.35	0.26
$\beta_2$	0.50	0.47	0.22	0.46	0.22	0.46	0.05

#### **IV: Conclusions**

From the above tests, it is clear that the relevancy of the Taylor rule is questionable in USA and in India. Neither country has ever adopted the monetary policy to be consistent with any rule. Our results show that India uses no pre-determined strategy to change money supply, at the most the policy makers keep in mind that excessive inflation is unacceptable and the money supply growth is moderated in case of expected inflation getting out of bounds. Interest rates have been at a high level in India and the non-monetary sector's existence puts a limit to the effective monetary policy. We do not see any relevancy of the Taylor rule in monetary policy making in USA either. The interest rate has been exceptionally low, since 2008 discount has been close to zero which means interest rate is not seen as the policy tool for last whole decade. The monetary policy making is done more to the tune of data observation and there is no a priori perception to the money supply change. Changes in money supply are more instinctive and spontaneous. In fact, attempts of quantitative easing of recent years have shown that any kind of rule for making change in interest rate is not applied.

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