MODELING AND ESTIMATING FIRM’S DEMAND FOR HRM PRACTICES

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ABSTRACT

HRM in its broadest sense is the choice that organizations make from the myriad of policies, practices and structures for managing employees. The goal of HRM theory is then to explain why individual firms choose a particular level of expenditure per capita on HRM and the package of HRM practices. Given that firm’s choice with respect to HRM policies and expenditure becomes the main explanatory variables any theoretical model should identify a set of dependent variables that influence the firm’s choice of HRM. In this context the present paper aims at modeling firm’s demand for HRM practices by utilizing the standard neoclassical theory of demand of economics. The model is based on the premise that firms adopt HRM practices because it is in alignment with profit maximization objective of the firms. The demand for HRM practices then depends on: level of output, prices of input, size of the firm, production technology, Workforce characteristics, Market conditions, etc. This theoretical demand function is then used to estimate an empirical HR Demand Function...
using a sample of one hundred Indian firms. Estimation results show statistically significant relationship between the dependent and independent variables of the estimated model.

**Key Words:** HRM Demand Function, Neoclassical Theory of Demand, Profit Maximisation, Theoretical Model

**INTRODUCTION**

The relationship between HRM practices and the firm’s performance is an active area of research especially with the emergence of the new subfield in HRM, namely Strategic Human Resource Management. New ideas and innovations in management theory and behavioural sciences coupled with high involvement workplace practices like self-managed teams, cross training, employee participation, gain sharing forms of pay, etc has lead to renewed interest in this area. During the 1980s global events like productivity slowdown, intensive global competition, universal implementation of Japanese management methods has made researchers to explore the linkage between High Performance Work Systems (HPWS) and labour productivity which provides the firm with sustained competitive advantage. In this context the pioneering contribution of Huselid (1995), Black and Lynch (2001), Combs (2006) Boxall and Purcell (2008) lead to the framing of hypothesized positive relationship between the use of advanced HRM practices and achievement of higher profitability and other organizational goals. The present paper aims at testing this hypothesis in Indian context for a sample of firms. Specifically the hypothesis that is proposed to be tested is that “does more HPWPs lead to higher level of performance of the firm”. To accomplish this task a Huselid’s type of regression model is estimated using data on 54 Indian firms culled out of the CMIE data base. The paper is organized as follows: Section II is a brief review of literature followed by formulation of research problem in section III. Section IV contains the description of model specification and estimation procedure. Section V is the discussion of results and section VI concludes the paper.
LITERATURE REVIEW

Researchers like Beer and Spector (1984), Dulebohn, Ferris, and Stodd (1995) were of the view that HRM practices are instrumental in achieving high firm performance. Writers like Kochan, Katz and McKersie (1986), Kliner et al (1987) have pointed of the potential of HPWP type of HR practices in boosting productivity of the firms and achieving sustained competitive advantage. The path breaking contribution in this field is the work of Huselid (1995), where he fit a regression model that explains variations in firm level productivity, turnover and financial performance as function of two HRM composite variables: employee skills and organizational structures. Further evidence to this came from the works of Combs (2006) and Boxall and Purcell (2008). Works of Boselie, Dietz and Boon (2005) has also demonstrated that HRM does matter. The Huselid type HRM-firm performance regression model is also been utilized by researchers in the fields of labour economics and SHRM. Another variant of the HRM-firm performance regression model within the neoclassical theory of demand framework was that of Kaufman and Miller (2010). This work introduced the concept of HRM frequency distribution and also tried to model the transmission mechanism between HRM and firm’s performance. However still a lot issues relating to specification and estimation of the HRM-firm performance regression model still persists.

FORMULATION OF RESEARCH PROBLEM

The theoretical literature on HRM and Organizational behavior clearly suggests that the organizational performance is influenced by behavior of employees. Through superior HRM practices the competencies of the employees and the supporting organizational structures can be influenced there by firms performance can be improved. Thus there is a link
between HRM practices and the performance of the firm. To establish this linkage a regression model is being estimated. The superior HRM practices is the independent variable and is proxied by High Performance Work Practices (HPWP). The Dependent variables are Productivity and Corporate Financial Performance.

MODEL SPECIFICATION AND DATA

The empirical counterpart of the HRM-firm performance model is specified as follows:

\[ \text{Perf}_i = \alpha + \beta \text{HRM}_i + \varepsilon_i \quad \text{(1)} \]

where \( \text{Perf}_i \) is a composite measure of \( i^{th} \) firm’s performance in terms of both productivity and financial performance. \( \text{HRM}_i \) is a vector of HRM practices of the \( i^{th} \) firm and \( \varepsilon_i \) is the error term which is assumed to be normally distributed.

Dependent Variables

The two dependent variables are Productivity and Corporate Financial Performance. The logarithms of sales per employee is considered here as a measure of organizational productivity. The gross rate of return on capital (GRATE) is being considered as an accounting measure of firm’s Corporate financial Performance. A weighted index of these two dependent variables with weights being determined by the size of the firm (Baysinger and Mobley, 1983) is the composite measure of firms performance in this study.

Independent Variable

The vector of HRM practices include nine practices relevant for employee motivation and skill development and four factors on organizational structures that create environment for transmission of HRM practices into firm’s performance (Kaufman, 2002).
Data Sources

The relevant data on the specified variables were gathered from 100 companies both large scale and medium scale were collected from the data base of CMIE. This cross section data is collected for the financial year 2010-2011.

Model Estimation

The model being specified in equation(1) is estimated by OLS procedure and the statistical significance of the regression coefficients is validated by applying the t- test. The sign of the regression coefficient is taken as an indicator for the validation of the hypothesized relationship between HRM-firm performance linkages.

Sample profile

The sample includes 100 companies both from public sector and private sector. Nearly 60% of the companies are in manufacturing sector and the remaining 40% are in service sector. The average number of employees in each organization is about 1500. On average the percapita expenditure on HRM practices of these organizations is about Rs:47800 with a SD of Rs.28. All these companies have reported operating profits.
### RESULTS AND DISCUSSION

The regression results as shown in Table 1 clearly reveal a positive and statistically significant relationship between HRM practices and firm’s performance. The independent variable, HRM practices index which is a combination of various HRM practices which have bearing on employee skills and organizational structures seems to have positively influencing the dependent variable, namely firm’s performance which is again is a weighted average index of productivity and GRATE of the firm as indicated by the t – ratio and the corresponding level of significance of the estimate. Thus we may conclude that for the 100 sample firms OLS estimates show positive linkage between HRM practices and firm’s performance. These results are in tune with the earlier empirical studies of similar nature.
REFERENCES


