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AN ENQUIRY INTO IMPACT OF HR ARCHITECTURE ON HUMAN CAPITAL POOL

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Abstract

The purpose of this research—which yielded more than 466 respondents—was to identify the idiosyncratic context of HR practices and policies followed by various IT organisations to strengthen their human capital pool. The research is carried out primarily on the basis of field survey and designed to study and analyse the extent to which HR practices and procedure practised in various Indian IT organisations are boosting development of human capital of that particular industry and found that both acquisition and developmental HR configuration has significant contributions for the development of the human capital of the organisations under study.

Keywords: Intellectual capital, knowledge economy, Acquisition HR configuration, Developmental HR configuration, Human capital,

Introduction

HR configurations facilitate flow of knowledge, which leads to sustainable competitive advantage. HR is always on the front line in developing the knowledge base in the organisation. HR practices have a central importance in knowledge intensive industries because they have immediate effect on the organisation's key resource, its stock of intellectual talent. HR practices are especially important in attracting, retaining and developing the skills and knowledge of employees. A particular challenge is the 'talent war' for specialised skills that takes place in very tight labour markets. This creates a need to devise practices which retain these employees and develop their skills to match the often fast changing nature of the product market like software industry. HR strategy drives the long term strategy of the business. So the HR practices must be deliberately chosen and used strategically to maintain strong organisational boundaries, to promote high levels of organisational and professional identity more specifically it encourages the retention of staff in a highly competitive industry. The study is of view that the architectural perspective of HR (HR configurations) is consistent with the



uniqueness and value of employee knowledge and skills, employment mode, and employment relationships. Designing of the HR architect can enable in managing human capital of an organisation strategically and harnessing and leveraging their knowledge and experience and expertise more systematically to attain competitive advantage. Hence the organisations need to optimise the workforce by formulating and implementing idiosyncratic, non-imitable HR policies and practices in order to devise it as a competitive weapon not to attain business goal only but for long term sustainability and growth.

The study is carried out primarily on the basis of field survey. A broad group of Indian IT organisations are taken because the IT sector is experiencing highest rate of turn over worldwide. Talent management and retention is one of the major issues of the industry. The research is designed to study and analyse the HR practices and procedure practised in various Indian IT industries. The specific purpose of the study is to examine how different HR configurations and practices truly leverage the development of human capital as competitive weapon of the various IT organisations under study. A stratified random technique has been adopted to select the respondents for the study. 844 respondents were selected randomly from lower, middle and upper levels management of the Indian IT organisation out of which 466 responses were used for the study. A 19 items questionnaire was developed to measure HR architecture of the organisations under study and strength of human capital are measured by a questionnaire consisting of 5 items. Following two hypotheses were tested in the study. A simple regression model was designed with the help of excel to find out the explanatory power of HR architecture to human capital development of the concerned organisations.

$$Y = \beta_0 + \beta_1 Z_1 + \beta_2 Z_2 + \dots + \beta_n Z_n + \epsilon$$

Y (Y_1, Y_2, \dots, Y_n) are dependent variables
 $\beta_0, \beta_1, \beta_2, \dots, \beta_n$ are unknown parameters
 Z_1, Z_2, \dots, Z_n are independent variables
 ϵ ($\epsilon_1, \epsilon_2, \dots, \epsilon_n$) are error terms

Simple regression equations are designed and tested with the help of excel to find out the explanatory power of both acquisition HR configuration variables and developmental HR configuration variables to human capital pool of the organisations under study.

OHC is f (AHRC₁, AHRC₂ AHRC₇)

OHC is f (DHRC₁, DHRC₂, DHRC₃..... DHRC₁₂)

Hypothesis 1: An acquisition HR configuration, AHRC (comprised of selective staffing, external pay equity, and employee ownership) is positively related to an organisations level of human capital, (OHC).

Hypothesis 2: A developmental HR configuration, DHRC (comprised of comprehensive training practices, promotion from within, developmental



performance appraisal process, and skill based pay) is positively related to an organisation's level of human capital (OHC).

Review of literature

HR and human capital

As human capital refers to individual's knowledge, skills, and expertise, the concept is of paramount importance in any discussion of intellectual capital. Knowledge intensive firms place most importance on human capital as opposed to physical or financial capital. In a knowledge economy people is considered as revenue creators rather than costs. Knowledge of people's competence is sources of wealth creation. Human capital is valuable to the extent that it contributes to a firm's competitive advantage by improving efficiency and effectiveness, exploiting opportunities or neutralising threat (Barney, 1991; Lado et al., 1992). They are the only assets that appreciate with use. Human capital is the ability of the employees to do things that ultimately make the company work and succeed. Human capital begins with human resources in the form of knowledge and skills embodied in people. The human resources of a company act as a surrogate indicator of its competence and credibility affecting the ability to attract and develop other types of resources and capabilities needed in the innovation, development and growth process (Florin et al., 2003; Pennings et al., 1998). Hambrick and Mason (1984) suggested that organisations are reflection of their top managers. Building on this work, Finkelstein and Hambrick (1996) argued the importance of human element in strategic choice and firm performance. In fact, managers in particular represent a unique organisational resource (Daily et al., 2000). The human element has grown in importance because knowledge has become a critical ingredient to gain a competitive advantage, particularly in the new economy landscape (Grant and Spender, 1996). Carly Fiorina, CEO of Hewlett-Packard, emphasised this point "The most magical and tangible and ultimately the most important ingredient in the transformed landscape is people.

The literature on organisational learning, for example points out organisations, in and of themselves, do not create knowledge, people do (Argyris and Schon, 1978). Knowledge is created by individuals. An organisation cannot create knowledge on its own without individuals. Individual learning is prerequisite for organisational learning (Kim, 1993). Individual learning occurs simply by virtue of being human. As individuals learn, they increase their human capital and create knowledge that potentially forms a foundation for organisational level learning and knowledge accumulation. Knowledge stocks provide a foundation for understanding the role of human capital as a potential source of firm's core competencies (Grant and Spender, 1996). Managing people based on their human capital will allow an organisation to optimize knowledge creation- whether of new product ideas and services or of improvements in business processes (Hitt et al., 2001; Lepak and Snell, 1999). Researchers have examined that, variations in HR practices is accompanied by differences in employment system as well as differences of human capital (Lepak and Snell, 1999; Kochhar, 2001). Through a



series of unique HR practices firms may have access to valuable human resources that provide a source of competitive advantage (Colbert, 2004; Lado and Wilson, 1994; Ray et al., 2004).

Human capital theorists have typically argued that organisations can increase their human capital by internally developing the knowledge and skills of their current employees and by attracting individuals with high knowledge and skill levels from the external labour market. That is, organisations can try to make and buy human capital. Human capital grows in two ways; when the organisation uses more of what people know and when more people know more of what is useful to the organisation (Stewart, 1997). Organisation exists for a purpose and is a deliberate arrangement of human and other resources with the aim of delivering needs, satisfying services and products as effectively and efficiently as possible, which ultimately needs optimal workforce planning.

Buying Human Capital

Acquisition HR configuration AHRC, Thomas Davenport defines human capital as encompassing knowledge, skill and talent. Talent is considered as the driving force behind HR's contribution to organisational success. The article "it is the talent stupid" reinforces the central role of talent in the evolution of HR's impact with the organisation they support (Buckingham and Vosburgh 2001). As the importance of talent has gone up with the 21st century, the way of recruiting has changed dramatically which ultimately leads to selective staffing. Selective staffing practices are often championed as the foundation of an HR strategy focussed on acquiring human capital. Operationally, selective staffing can be thought of as two distinct search processes: extensive search and intensive search. Extensive search expands the applicant pool by using wide variety of recruiting sources like employee referrals, search firms, universities, employment agencies and increasing the number of candidates screened for hire. Intensive search on the other hand, increases the amount of information gathered about each applicant via interviews, tests, biographical information, etc.

As Koch and McGrath (1996) reason, "assuming a sufficiently well - populated labour market from which to choose, firms that take more care in their search, by increasing information at both the extensive and intensive margins, are more likely to be able to access high - quality new employees". This proposition is also supported by existence of labour market imperfection, which speaks "return on human capital differs between different labour market segmentation". Thus, if such individuals perform at their best, they must add value to the firm and help differentiate the products or services rendered. Thus, some HR activities and functions may be a source of competitive advantage, whereas others may not. Therefore, it can be well concluded that, acquiring and maintaining highly talented and motivated reservoir of multidisciplinary human resources meet the needs of the organisation and continuously create new opportunities for employees to upgrade their capabilities and channelize their potential leading to organisation success. This proposition is also again supported by the resource based view of the firm that



explains variations in firm performance by variations in firm's human resources and capabilities (Hitt et al., 2001). Although an acquisition configuration primarily builds on staffing practices, it is likely to be complemented by compensation and reward systems. To attract the best candidates, companies frequently pay high wages relative to competitors in order to ensure that they meet or exceed market equity. In addition, stock ownership is also espoused to help attract and retain the best and brightest workers. "In order to hold people inside the corporation, we cannot really talk about their being employees any more. There has to be some kind of continuity and some sense of belonging". Different long term incentives, such as stock ownership, extensive benefits or knowledge based pay system may be offered to ensure that core employees receive continued and useful feedback and adopt a long term orientation (Snell and Dean, 1992; Huselid, 1996). Such practices are designed to help firms maintain unique knowledge that leads to strategic advantage (Becker, 1976).

Stewart (1997), for example, pointed out that employee stock ownership programs appear to be increasing in popularity, especially in knowledge –intensive companies because ESOPs primarily provide an employee benefit directly related to the organisation as it aims towards giving shares to staff members and making them part owners of the employer company. Through the ESOPs employees own the business and it ensures employee roles, rights and responsibilities as owners. No one is more concerned about a company than its owners. According to Suryanarayana and Varadarajan "employee stock ownership schemes have caught the imagination of the corporate sector as a concept of reward and motivate employees to attract and retain the best talent and to ensure employees commitment and firm performance". Employee stock ownership plans (ESOPs) and various other ownership sharing tools like employee stock purchase scheme (ESPs) motivate the workforces of an organisation to think and act like business people and they feel themselves as part owners of the organisation, which ultimately increases human capital pool of the concerned organisation. Many of these companies go public not to raise money for capital expenditures, but rather to share ownership with their most valuable assets – employees.

Making Human Capital

The crucial differentiating factor between companies can be how human resources are developed and nurtured in particular organisation (Yazdani, 2008). Developing human capital in the *organisation is the major challenge for formulating competitive strategies*. As an alternative to or in conjunction with an acquisition configuration, organisations can enhance their human capital pool through a developmental human resource configuration (DHRC) based on training and education. Human capital is unique, in that it is only asset that can be developed through various forms of education, training and on the job experience. Employee training ensures an organisation having skilled, motivated and competent workforces. Starting from orientation programs and technical training classes experienced early in one's career, to leadership development and executive



coaching, training and development is deeply woven into the fabric of talent management practices. Training and education have long been the primary, focus of human capital theory. Bartel (1991) finds that firms with active human resource planning are more likely to train. Attracting the right people and providing them with learning opportunities will create right skills to meet the needs of the business now and in the future. So to create work forces that provide competitive advantage the firms create environment that provide knowledge, motivation, engagement that would be difficult for competitors to imitate (Afioni, 2007; Agarwal and Ferret, 2001; Luftman and Kempaich, 2007).

More recently, researchers have noted the central role of comprehensive training in firms, attempting to transform their workforces from touch labour to knowledge work (Snell and Dean, 1992). Training comprehensiveness encompasses both intensity and scope. Training intensity focuses on the depth of intervention, the duration of the programs, and the degree to which they are continuously updated. In contrast, training scope focuses on the breadth of training, the different types of training opportunities offered to employees, the utilisation of cross training and like. The common assumption is that getting people learn is largely a matter of motivation. When people have the right attitude and commitment, learning automatically follows. So companies focus on creating new organisation structures (skill-based pay, performance reviews, co-operate cultures) and the like that are designed to create motivated and committed employees (Argyris, 1993).

Training tends to be a focal point in discussions concerning the development of human capital. Training of workers contributes to an increase in the capital stocks available to the economy. Training is closely related to innovation. It upgrades the skills of employees. Human capital development is complementary to innovation. The main objective is to maximise knowledge amount by providing specialised training that is firm specific. Firm specific training will ultimately increase the uniqueness of human capital of an organisation, increasing the tacit knowledge or deep experience and understanding that cannot be found in an open labour market (Perrow, 1967). Several studies suggest that firm - specific experience (Becker, 1962 Pennings et al., 1998) that is not readily available to competitors defies attempts at imitation of service offerings and thus may provide a potential source of increased performance (Snell et al., 1996). People would perform better, if they have more training and more information about how the company works. It is fair to state that the best development for making talent can be possible through on the job experience.

Becker (1964) originally pointed out that under norms of rationality organisations would prefer programs that produce firm –specific skills that are non-transferable to other companies. Competitors of the firm always try to employ better people for the job. Hence the ability of the firm to create unique team is the most cost-effective ways to create sustainable advantage (Ericd, 2007). Specific resources are unique and difficult to imitate (Barney, 1991). Specificity of skills is associated with specificity of human capital. In other words it can be stated that human capital is most valuable when it is firm specific (Hatch and Dyer, 2004; Hitt



et al, 2001). In order to capitalise on such training investments, as well as encourage employees to develop firm specific skills, many theorists suggested that organisation should utilise promotion within, or internal labour markets. In Koch and McGrath (1996) speaks “A firm that pays for training and that subsequently fails to promote from within is arguably failing to capitalise on its investments”.

Broadening this HR configuration further, supportive performance is also espoused to facilitate employee development. One way to generate firm specific resources is human capital development (Lepak and Snell 1999). Although performance appraisal can focus on administrative as well as developmental functions, it is the developmental aspect that is most expected to influence learning and skill enhancement. Learning is being positioned as key strategic element in an organisation’s success, and much more than a tactic aimed at improving job performance. Senge (1994) described a learning organisations as one, “where people continually expand their capacity to create the results they truly desire, when new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together” (Senge, 1994). Compensation systems, particularly those associated with skill and knowledge based pay allows individuals to develop their skills and increase their pay a hence likely to play a significant role in motivating employees to increase their human capital. Treating the employees fairly in all respect without any discrimination, specifically providing skill based pay helps organisations in motivating and retaining employees. When companies link pay to the knowledge, skills, and abilities of their workers, they hope to direct the attention of their employees to developmental opportunities and to encourage skill - seeking behaviour (Murray and Gerhart, 1998).

Empirical evidences

Demographic analysis

As shown in Table 1 demographic profiles of the respondents consist of small, medium, and large organisation, where respondents from large organisation constitute almost half of the total population in the study. Female participants in the study was one third where as male participants consisted of two third of the total population. Age- wise distribution depicts 26-34 year age group dominates in the study consisting of more than 50 percent of the total sample. The respondents having 5-10 years of experience at current organisation is very well present in the study consisting of 51 percent of the total sample.

Regression Analysis

The causal relationship between set of variables of acquisition HR configuration and human capital of the organisations understudy are analysed with simple regression analysis ($F(1, 464)=896.155, p < 0.0005., R^2 = 0.659, \text{Adjusted } R^2= 0.658$) and significant variables are shown below:



Predictor Variable	Intercept	Beta	p
Acquisitions HR Configurations	0.688	0.86	p < 0.0005

Table 1: Demographic Analysis

Parameter	Group	#	%
Size	Small	143	30.7
	Medium	108	23.2
	Large	215	46.1
Sex	Female	172	36.91
	Male	294	63.09
Role	Senior Management	106	22.75
	Middle Management	132	28.33
	Junior Management	142	30.47
	Non Management Exec	86	18.45
Age	26-	56	12.02
	26-34	246	52.78
	34-42	92	19.74
	42-50	52	11.16
	50+	20	4.3
Organisation Experience	2yr-	106	22.74
	2 to 5	78	16.74
	5 to 10	239	51.28
	10 to 20	33	7.08
	20+	10	2.16
Total Experience	2yr-	30	6.44
	2 to 5	94	20.17
	5 to 10	168	36.05
	10 to 20	138	29.62
	20+	36	7.72
Total		466	100

Hence the regression equation $HC = 0.69 + 0.86AHRC$ with standard error 0.10 and 0.03 respectively corroborate the hypothesis-1, which depicts an acquisition HR configuration is positively related to an organisations level of human capital. Similarly the causal relationship between set of variables of developmental HR configuration and human capital of the concerned organisations



are analysed with simple regression analysis ($F_{1, 4641}=1597.591$, $p < 0.0005$., $R^2 = 0.775$, Adjusted $R^2 = 0.775$ and significant variables are shown below:

Predictor Variable	Intercept	Beta	p
Developmental HR Configurations	1.094	0.72	$p < 0.0005$

The regression equation $HC = 1.09 + 0.72DHRC$ with standard error 0.06 and 0.02 respectively corroborate hypothesis-2, which speaks developmental HR configuration is positively related to an organisation's level of human capital.

Discussion

The impact of human resource management (HRM) policies and practices on performance of the firm is an important topic in the field of human resource management, industrial relations, and industrial and organisational psychology (Boudreau, 1991; Jones and Wright, 1992, Jeff and Kleiner, 1995). "The *use of high performance work practices*, including comprehensive employee recruitment and selection procedure, incentive compensation and performance management system, and extensive employee involvement and training, can improve the knowledge, skill and abilities of firm's current and potential employees, increase their motivation, reduce shirking, and enhance retention of quality employees while encouraging non performers to leave the firm.

Today, competitive advantage depends on intangible assets especially human capital. People and their efforts are what make one organisation different from its competitors but the management of man" is a very important and challenging job, because it is a job, not of managing 'men' but of administering a social system. The study aims at measuring the extent to which HR configurations boost human capital of organisations under study. The study provides consistent support for the notion that HR systems are fundamental in the development of human capital. Investment for attracting and selecting the best and brightest were shown to correspond to an organisation's human capital. Similarly comprehensive training and development efforts were also related to an organisations human capital. Through a series of unique HR practices firms may have access to valuable human resources that provide a source of competitive advantage.

Conclusion

People are the organisations greatest asset, providing the intellectual capital that drives differentiation and value added services. To keep pace with globalisation modern organisations have to deal with each individual differently and tactfully, thereby fulfilling the demands of employee as well as taking steps towards growth plan of the organisation. The research work found that by selective staffing organizations acquire needed types and level of skills which others cannot. Then that form of human capital is becoming a source of competitive advantage. Employee stock option and employee stock purchase program as a part of employee compensation creates ownership culture and ensures employee retention.



Since the study is carried on in a hi-tech and skill based industries in which application of knowledge or skill determines productivity, performance and competitiveness, it is found that Skill-based Pay (SBP) is an innovative reward system that promotes workforce flexibility by rewarding individuals based on the number, type, and depth of skills mastered. Again it is found that providing promotion from within has also significant effect on human capital development. It increases the motivation level of current employees who already know the business and they take the ownership of getting things done. Hence they are the best bet for filling the position with expertise. So far as comprehensive training practices are concerned since the organizations under study are knowledge based industries, intellectual capital, especially human capital are the major asset of the company, the organization continuously invest on comprehensive training practices like seminar, conferences, coaching, counseling and mentoring activities for people development. Learning constitutes the core of the organization culture. The organizations under study are practicing 360 degree performance appraisal and 360-degree review of the employees' performance very efficiently. It is considered as one of the most credible performance appraisal methods by which personal skills of the employees are evaluated based on their learning and analytical ability, communication skills, decision making, change management, planning and organizing skills. The system is a good system where everybody succeeds. Hence in conclusion it can be stated that it is very difficult to grasp the precise mechanism by which the interplay of human resource policies and practices generates value because those HR systems are path dependent. They consist of policies that are developed over time and cannot be simply purchased in the market by competitors. This interdependency between HR practices combined with idiosyncratic context of companies under study creates high barriers for imitation and increases the human capital value of the organizations.

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