

The Measurement and Effect of Human Resource Management in High-Technology Firms

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ABSTRACT

One of an organization's intangible assets is its human capital. It essentially encompasses all of a person's abilities and devotion, including their knowledge, potential, and capacity. Supply and demand are mirrored in the link between human capital management: corporate organisations must manage the supplier while employees, independent contractors, and consultants put their own human capital into them. Naturally, any organisation concerned with its performance will inquire about how well this asset is being managed to ensure the highest return on their investment. Similar to this, all workers, consultants, contractors, and other human capital providers want to make sure they are receiving the right return on their own human capital investments in the form of pay, incentives, perks, and so on. The findings of this study demonstrate the strategic value of managing human capital in organisations. The main goal of this study is to investigate a wide range of features and the significance of human capital in today's hypercompetitive climate, as well as to go into specifics to learn more about the topic at hand, namely human capital. Being an exploratory study, the paper mainly relies on the analysis of the existing literature. Organisations have consistently placed a fair amount of emphasis on human capital by taking the necessary steps to create a culture of knowledge sharing and retain highly qualified employees to produce more innovative ideas in an effort to gain a competitive advantage over modern organisations. Since implementing innovative ideas and concepts improves organisational outcomes, it is implied that human capital is favourably correlated with organisational productivity in all respects. Employees have a tendency to become devoted and passionate about their work as a result of intellectual capital, giving it their all in an effort to gain the crucial competitive advantage. The findings of this study demonstrate the strategic value of managing human capital in organisations.

Keywords: measurement, intellectual capital, competitive advantage, firms performance

I. INTRODUCTION

According to Dzikowski (2000), an organization's members' knowledge, capacities, skills, and expertise are referred to as its "human capital." Numerous consulting firms that promise to build, measure, and manage the human capital of their clients' organisations can be found by searching for "human capital" on Google. In 2004, it appears that the concept of human capital is even more important to businesspeople than it was when it was first proposed more than 40 years ago. The debate about human capital was started by 1992 Nobel laureate in economics Becker, who focused on human capital primarily in terms of investments in on-the-job training and education in the 1960s. So why are businesses showing a greater interest in maintaining and cultivating human capital?

Anyone with a stake in knowing what drives a firm's performance should be interested in the topic because theory and research indicate that human capital influences organisational performance both directly and indirectly. Practises that improve human capital can have an indirect impact on an organization's performance by influencing the knowledge, values, and behaviours of its workforce. The performance of the organisation is determined by the interaction of personnel abilities, attitudes, and behaviours (Ostroff & Bowen, 2000). By generating structural and operational efficiency, human capital can also have a direct impact on an organization's performance (Ostroff & Bowen, 2000).

Although corporate executives firmly think that people are their most important asset, a recent Accenture poll found that most executives are unable to demonstrate how investing in people improves business performance. The fact that Human Capital is an intangible asset that is difficult to represent in financial statements but is yet absorbed into market value complicates this search for empirical evidence. As evidence that markets place significant value on intangible assets, such as Human Capital, when calculating the likelihood that a corporation will succeed, IBM acquired Lotus in 1995 for US\$3.5 billion, or 14 times its book value (Rylatt, 2003).

The associations typically provide incentives to the learning their specialists acquire in order to survive and outperform expectations in the current hypercompetitive and dynamic environment. Nowadays, an advantage must be gained with the help of the knowledge their specialists possess. Traditional strategies for gaining a competitive edge

(natural, financial, and achieving economies of scale) have become obsolete as a result (Burke, 2005). These days, the demands for activities have also become more complex, thus the demands for activities can only be met by employees who are adaptable and active. Today, there is a strong focus on the talents of representatives, and organisations are turning into teaching organisations where the employees are engaged and given the opportunity to establish and advance their careers. The associations provide the workers with appropriate resources and control the cost of training programmes in an effort to increase their effectiveness. Azlauskait and Buien (2008).

With their expertise, experts contribute original and creative ideas that raise the association's value. The value also takes into account immovable assets like licences, the reputation of an organisation, and the expertise of employees (Sveiby, 1997). This added value will increase representative exhibitions while also increasing the authority's profitability (Bontis et al., 2000; Chen et al., 2005; Youndt and Snell, 2004). These knowledgeable professionals are sometimes referred to as the academic capital. Human capital, social capital, and auxiliary capital are the three pillars of academic capital (Bontis, 1996; Edvinsson and Malone, 1997; Marr, 2005; Roos et al., 1997; Stewart, 1997).

Since an association's standards and expectations change the faculty's mentality and behaviour, hierarchical culture plays a significant role in learning refinement. Organisations convince their employees to organise meetings to generate fresh concepts so they can think creatively and suggest alternative solutions to problems. The top management encourages employees to share their experiences and mindfulness. This kind of learning, which is the result of collective cunning, can give you the upper hand (Floyd and Path, 2000).

II. LITERATURE REVIEW

In their 'value platform' approach of managing intellectual capital, Edvinsson, St Onge, Armstrong, and Petrash (1997, quoted in Dzikowski, 2000) address human capital as a sub-component of intellectual capital. Intellectual property, intellectual assets, and knowledge assets are all terms that are frequently used interchangeably with intellectual capital. According to Dzikowski (2000), a company's whole stock or knowledge-based equity constitutes its intellectual capital. The model developed by Edvinsson et al. (1997, referenced in Dzikowski, 2000) includes knowledge, education, vocational qualifications, work-related knowledge and competences, entrepreneurial activity, innovativeness, proactive and reactive abilities, and changeability as components of human capital. The approach views organisational (structural) capital as being constructed from human capital. The interaction of the three sub-components of intellectual capital—human capital, organisational capital, and customer capital—generates value.

Human Capital and Human Resources share a similar conceptual underpinning, according to Dzikowski (2000), who asserts that the practises for managing human capital frequently originate in the management of human resources. A system for delivering knowledge, skills, or intellectual upgrade as needed is developed along with evaluation and reward systems that are linked to the acquisition and application of competency that is in line with the organization's strategic objectives. Management practises also include creating an inventory of employee competencies, scanning the environment to identify competencies that need to be developed or acquired to meet strategic objectives, and developing a system to deliver knowledge, skills, or intellectual upgrade.

According to Rylatt (2003), human capital is a sort of expertise that is comparable to, rather than a subset of, intellectual capital, customer and relationship capital, and other types of capital. According to Rylatt, human capital is a measurement of the present knowledge held by those who are under an organization's authority. Indicators of human capital include, but are not limited to: average years of service; employee satisfaction; hours and financial investment; expert turnover; level and type of education; literacy levels; staff morale (percentage of employees indicating concern with existing culture and climate and staff turnover); succession planning (percentage of key positions with at least one fully qualified person ready to overtake into a leadership position). High levels of engagement and passion at work are a sign that human capital is benefiting the firm (Rylatt, 2003).

HR practises are seen by Ostroff and Bowen (2000) as investments in human capital. By enhancing the organization's collective knowledge and abilities, an organization's human resources policies and practises can increase human capital (Ostroff & Bowen, 2000). By choosing candidates who have strong ability and the potential to enhance their abilities, human capital can be increased through recruitment. Through formal and informal training and development initiatives, employees' existing levels of knowledge and abilities can be improved after they join the firm. Employees and managers can discover areas for improvement and set attainable, personally relevant developmental goals through formal performance appraisal systems, which promotes further skill acquisition. Employees may have the chance to improve their technical and interpersonal knowledge and abilities as a result of changes in work design, such as expanding an employee's duties or moving from individual to team-based work. By acting as an external motivator, skill-based remuneration rewards an employee's efforts to develop their talents. Employees are able to grow in their new work environments while maintaining their general and company-specific expertise within organisations that exhibit functional flexibility, where employees have the option of being transferred to a different function, department, or subsidiary.

The Accenture Institute for High Performance Business distinguishes between Human Capital processes and Human Capital skills (Thomas, Cheese & Benton, 2003). Core HR procedures like competency management and performance appraisal as well as more general human capital processes like learning and knowledge management are examples of practises that contribute to strong and successful human capital capabilities.

The different characteristics and facets of organisational personnel are represented by human capital. These qualities include their skills, procedural knowledge, and unique personal traits like mental aptitude, zeal and enthusiasm, opinion, consistency, dedication, loyalty, inventiveness, ingenuity, ability to work in a team, and proficiency in achieving organizationally desired goals (Fitz-enz, 2000). based on Baron and Armstrong's (2007) definition;

In the management literature, human capital has been conceptualised in a number of different ways. It has been conceptualised as a part of intellectual capital that is handled by conventional HRM practises, as a sort of know-how, as improved employee knowledge and skills, and as a blend of traditional HRM practises along with learning and knowledge management.

The process of managing human capital involves gathering data that informs management about the organization's various policies, including those pertaining to its finances, operating processes, and human resources.

The fundamental characteristic of human capital is how an organisation manages its most valuable resource—its personnel. Additionally, by employing the workers effectively, the company might gain a competitive edge. Workforce and organisational planning are connected by human capital management (Kearns, 2005). In 1961, Schultz coined the phrase "human capital," which was later defined in 1981 to mean that all of a person's abilities, whether innate or acquired, must be taken into account. Human capital is defined as a person's personal qualities that contribute to or create value for an organization's activities.

III. KEY ELEMENTS OF HUMAN CAPITAL

Intellectual Capital: Of all the components of human capital, intellectual capital is the most important. It alludes to the organization's pool of creative and innovative talent. The human resource is an intellectual Another thorough definition of the term is provided by Bontis et al (1999); human capital refers to the factors that bring people together in an organisation so they can share their knowledge of various topics, experiences, and insights that set the company apart from its rivals. To do this, the company has to have employees who are driven to learn, adapt well to change, have creative and original ideas, and, with the correct supervision, can help the company compete on a par with its peers. Any organisation needs capital to use its tangible assets, as well as any other financial or material resources, to be profitable (Bontis, 1998).

Social capital: In this element, information is learned from the wisdom of the crowd. It could originate from within or without the company. Social capital is defined as the elements that enable people to cooperate to achieve common objectives. Mutual trust, shared ideals, and specific standards are among the factors (Putnam, 1996). However, throughout time and in response to changing conditions, social capital can be created and transformed (Bontis et al., 1999).

Organisational Capitals: According to Youndt (2000), organisational capitals include the private data that the organisation keeps in its data bank. According to Edvinson and Malone (1997), structural capital is another name for organisational capital.

Characteristics of the Human Capital List

- Know-how
- Union involvement
- Productivity ratios
- Education
- Number of personnel
- Ratios of stability
- Vocational training
- A worker thanked
- Participation of employees in community
- Employee spotlight
- Career advancement
- Proposal for executive compensation
- Spirit of entrepreneurship
- Plan for employee compensation
- Training initiatives
- Employee advantages
- Employee stock option programme
- Equity Concern: Disabilities
- Employee stock option programme
- Workplace safety
- Ratios of renewal to growth

IV. HUMAN CAPITAL MANAGEMENT AND HUMAN RESOURCE MANAGEMENT

Human capital management calls for competent workers who are highly skilled at what they do and whose competency is unquestionable. These individuals bring in original, creative ideas that set the company apart from its rivals. Employee commitment, retention, talent management, and staff learning and development are all aspects of human capital management. In today's dynamic and intensely competitive economy, managing highly skilled personnel has become crucial for survival (Huselid, 1995; Youndt et al., 1996). Human capital management includes three components that strengthen the impact of human resource management:

Human resource management primarily focuses on the demand and supply of labour, but knowledge and skill comprehension are also necessary for an organisation to fulfil its goals and objectives. Management of human resources is important for dealing with workplace problems on a daily basis. In order to achieve organisational goals, it draws in personnel and makes it possible to manage their performance. Human resource management seeks to match employee behaviour with organisational objectives (Rondeau & Wagar, 2002; Laursen & Foss, 2003).

V. HUMAN CAPITAL MANAGEMENT'S IMPORTANCE

Any organisation must work hard to find, captivate, and keep highly qualified people. The majority of the time, organisations focus on their physical and financial resources, although they do spend a fair amount of time on their staff. However, there is a formal chain of command and reporting structure for organisational workers. The correct benefits or ex-gratia must be provided to the employees in order to inspire them. The organisation can simply achieve the competitive advantage by inspiring their employees at the appropriate time (Edward & Lawler, 2009).

However, keeping highly talented and professional employees is never an easy process and is always a challenge. This is only achievable when the manager or supervisors provide the staff the appropriate direction. Simply said, give them the right feedback on how they performed and, in addition, provide them the proper rewards and perks in appreciation of their performance. People need to be inspired so that they develop a loyal attitude towards the organisation and genuinely devote all of their energy, knowledge, and talent to doing their assigned responsibilities with the utmost proficiency. To effectively manage a highly gifted employees, an organisation essentially needs three things (Edward & Lawler, 2009): To effectively manage its workforce and other organisational issues, top management must possess the necessary perception, expertise, and abilities (Edward & Lawler, 2009).

Effective leadership is required within the organisation, and senior management has a responsibility to engage with its staff to build these talents (Edward & Lawler, 2009).

The staff must be extremely talented, have a good understanding of how businesses operate, and be able to manage and attract employees. 2009 (Edward & Lawler).

Resource-based views play a crucial role in human capital management since they always expound on how organisational resources assist organisations stand out from their rivals. According to the resource-based view, an organization's human resources are its most valuable asset and are difficult for rivals to imitate (Barney, 1991; Grant, 1991; Peteraf, 1993; Teece et al., 1997). The organisation will gain a competitive edge by utilising its human capital, which is a valuable and limited resource (Hsu, 2008).

VI. FRAMEWORK FOR ALIGNED HUMAN CAPITAL

The three dimensions of our human capital framework are the desired culture, the human capital strategy, and the employee value proposition.

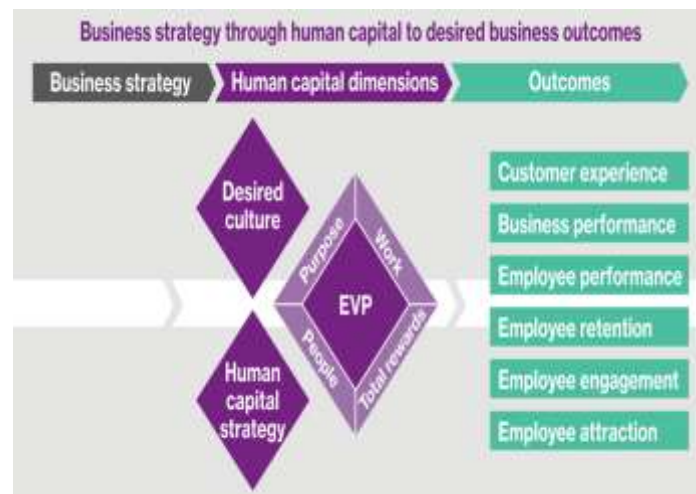
To attract, retain, and engage the vital talent required to meet the business goals of their organisation, many HR professionals struggle to coordinate different human capital initiatives and programmes.

The numerous employee categories defined in their talent management strategy are taken into account when designing the employee value proposition for highly effective organisations.

Human capital strategy choices are becoming increasingly complex along with the complexity of global business concerns. HR leaders must immediately understand the consequences of these changes for their programmes and the work of their HR organisations since organisations are under increasing pressure to disrupt and transform their current business models.

How do businesses create human capital solutions that support their corporate strategy and will draw in and keep the high-value personnel needed to meet their business objectives in such a changing environment? In order to comprehend how various solutions link to and interact with one another, HR directors must first be able to view their programmes holistically.

We have created the Willis Towers Watson Human Capital Framework to give people a framework and way of thinking for approaching all facets of human capital programmes holistically. The three dimensions included in this framework are the employee value proposition, the human capital strategy, and the desired culture (see figure).



Getting these human capital characteristics right will increase a company's likelihood of attaining a variety of desirable business outcomes, including financial success, according to research and consultancy experience.

VII. CONCLUSION

In today's knowledge-based economy, human capital is highlighted more. Human capital is of great priority and has therefore become highly necessary in order to thrive in the dynamic environment and to gain a competitive advantage. Human capital is a major concern for businesses because they believe that using their human resources effectively is the only way to get a competitive advantage. Because an organisation can only and completely differentiate itself from its competitors through its workforce, and because it is difficult for the competitors to duplicate the same workforce at their respective ends. Organisations today struggle to increase employee performance by successfully applying their human resource practises. Human capital will guide organisations towards improved decision-making, highly effective internal communication, and the generation of original and creative ideas. Additionally, it is guaranteed that every employee of an organisation will have the chance to fully express their potential. Given the dissertation's findings, it is clear that organisations can only completely prepare to adopt the finest knowledge management practises if they are totally committed to human capital management.

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