



Research/Technical Note

Human Capital Management: Understanding Its Implications over the Business

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Abstract: In the knowledge-based economy, human has emerged as the major intangible assets of the organizations and key determinant of sustainable competitive advantage. The human resource of an organization is now regarded as invaluable organizational capital, commonly known as human capital. Organizations are now more aware of the effective utilization of its human capital and ensure business success. However, despite the growing awareness of the importance of human capital, it could not get popularity as expected. From the initial investigation, it was revealed that there are several challenges in applying for the human capital management program. The challenges are a lack of precise definition of human capital and human capital management, overlapping scope and jurisdictions, identifying desired human capital and linking it with the business strategy, measuring the outcome of human intervention and reporting and so on. This literary paper would try to resolve these issues in the light of theoretical underpinnings. It is believed that this paper will be able to give HR managers and practitioners a meaningful guideline to apply for the human capital management program more confidently and effectively. In addition, this research would contribute to existing HR literature, too. An extensive literature search was the main source of information for this paper. For data validity and reliability data and information also collected from other sources, too such as, expert interviews, analyzing policy papers and personal observation, etc. To get an in-depth understanding of the research issues exploratory methodology has been applied in this study.

Keywords: Human Capital Management, Intellectual Capital, Social Capital, Organizational Capital, Human Capital Measurement, Resource-based View, Vertical and Horizontal Integration

1. Introduction

Due to the transition from the production economy to a knowledge-based economy, the twenty-first century has witnessed a dramatic paradigm shift in viewing the assets of an organization. The intangible resources, especially human resources, have become the key determining factors of organizations' success. The knowledge that all workers bring to an organization that provides a valuable asset to that organization [1, 2]. It is also believed that in the intense business scenario, human resources can play an important role

in making business truly competitive. As the business environment becomes more competitive, the human resources of the organization become more vital to firm success [1]. Despite the strategic importance of human capital management, this concept could not attract a good audience as expected due to some inherent complexities in it. These are a lack of precise and unified definition of human capital and human capital management, overlapping scope and jurisdiction, identifying desired human capital and aligning them with the business strategy, measuring the outcome of human interventions in the business and so on. While discussing the HR practitioners and managers it was further

revealed that a clear guideline is also needed to craft a human capital strategy for the business. Therefore it is imperative to address those complexities and resolving the problems in the light of theoretical underpinnings to ensure effective utilization of human capital in the business.

2. Purpose, Scope, and Significance

The core purposes of this literary paper are to resolve complexities in the effective management of human capital and to develop a managerial guideline for optimum management of human capital. To attain these purposes this study will exclusively emphasize on:

- i. Clarifying the meaning and nature of human capital and human capital management.
- ii. Identifying the constituents of human capital and their essential features.
- iii. Defining human capital management activities of a firm.
- iv. Finding the required human capital and aligning with the business objectives.
- v. Measuring human contribution to business success.
- vi. Developing a general guideline for human capital management program.

From the accomplishment of abovementioned objectives, it would be possible to draw relatively a precise picture of human capital and human capital management in terms definition, jurisdiction, constituents, aligning, measuring and so on which in result would provide a clear guideline to the HR practitioners and managers in managing human capital more efficiently. Simultaneously, it will also be possible to know how human capital management is different from traditional human resource management. Also, it is presumed that this study would contribute to HR literature, too.

3. Methodology

This study is exclusively involved in exploring the theoretical underpinning of human capital management. In this connection, the exploratory approach has been followed for this literary paper. Data and information have been collected from multiple sources to ensure data authenticity and validity. A systematic extensive literature review was the main source of data which has been complemented by expert interview and personal observation. For an expert interview, a one-to-one semi-structured interview technique was used to get an in-depth understanding of the research problem.

4. Human Capital (HC) - Origin, Definition, and Meaning

Traditionally, classical economists used to consider human merely as physical strength and the knowledge and abilities associated with the labor is very insignificant. In the early 60's Nobel prize-winner and economist, Theodore Schultz came along with a different perception regarding human resources. Schultz proposed that human capital is comprised of the

knowledge, skills, and capabilities of the workers engaged in a firm [2]. He (Schultz) also opined that efficient utilization of human capital would benefit every sphere of the society such as individuals, firms, communities, nations, and regions.

In general, human capital refers to the knowledgeable and highly skilled capable human resource of the organization along with its network and database. However, researchers define this term in numerous ways. Some scholars define it from the individual employee's point of view, whereas, others define its organizational point of view. Becker defines human capital as the insight and expertise that are associated with an individual [3]. Later on, Becker again redefines this definition (human capital) as the wisdom, information, ideas, efficiency, and health of individuals. This new definition has included both the intrinsic (information, ideas, etc.) and extrinsic (health) aspects of human capital. Youndt and his associates describe human capital as a worker's knowledge, skills, and specialization [4]. An analogous expression has been made by other researchers too; they opine human capital as knowledge, skills, and proficiency of an individual [5]. According to the individual perspective, human capital is predominantly knowledge, expertise, creativity, ability and so on of an individual worker. On the other hand, the organizational perspective highlights the collective human knowledge, ability, and expertise. It is the combined capability, knowledge and skills of the workers who are working in an organization [6]. Bontis and his fellow scholars provide a very good understanding of human capital; according to them, it represents the human dimension of the organization; the collective intelligence, abilities, and know-how that provides the organization its distinctive character [7]. Human capital is the combined worth of the competences, knowledge, abilities, life experiences, and inspiration of an organizational workforce and relentless source of creativity and innovation [8]. It (human capital) is the set of collective skills, knowledge, and ability that employees can apply to create value for their employers [9].

5. Human Capital - Constituents and Scope

Human capital consists of three individual but interrelated constituents - *intellectual, social and organizational capital*. Intellectual capital refers to the accumulation and streams of knowledge existing in an organization [10]. It is the collective tacit knowledge, human expertise, experience which can contribute to creating value for the organization [11]. It is the major element of the intangible resource of an organization.

Another important component is social capital. Social capital is the knowledge which has been derived from networking and relationship inside and outside the organization [10]. This capital is primarily originated from formal and informal networking, interaction and communication. The pattern and nature of social capital vary organization to organization and highly contextual. It creates social bondage within and outside the business. Furthermore,

social capital enables an organization to create a unique impression and identity in the market.

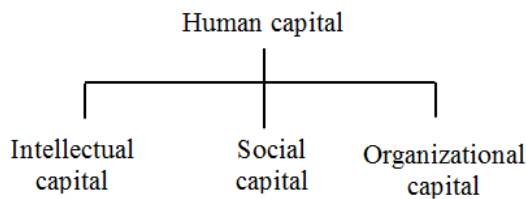


Figure 1. Constituents of human capital.

The third element of human capital is organizational capital. It is also known as structural capital. Structural capital i.e. organizational capital refers to the learning and knowledge that is originated from routine functions [12]. It is the formalized organizational knowledge acquired by a firm and deposited in its records, handbooks, policy papers, procedures, and routine, etc. It remains with the organization perpetually even though after the individuals leave [13]. It works as a supportive infrastructure for human capital [12]. Structural capital comprises all of the non-human depots of knowledge in firms, such as records, practices, organizational culture and everything that creates value for firms [13].

6. General Vs. Firm-specific Human Capital

According to the classic human capital theory, there are two types of human capital: general and firm-specific [14]. General human capital refers to the workers having standard competency that is matching with the job market in general. It develops worker's efficiency for several organizations i.e. it applies to many organizations, and on the other hand, firm-specific human capital strengthens an employee's efficiency only to the immediate employer i.e. for a particular organization [15].

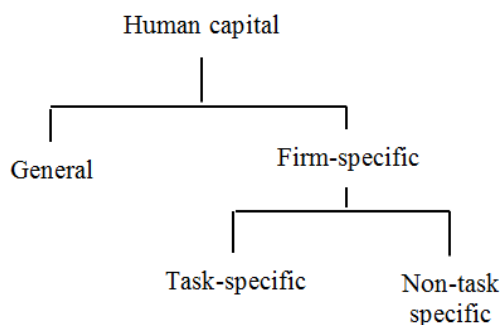


Figure 2. Classifications of human capital.

Formal education (primary, secondary and tertiary), professional courses (short and long-term), various certificate courses, vocational, experiences (personal and professional), etc. are the main sources of developing general competency or human capital, and is transferable between organizations. General human capital is not directly correlated to a specific job and it includes years of schooling and working experience

[16]. Individuals earn firm-specific human capital (skills, experiences, and expertise) only from their employment over the years in a specific organization. General human capital means general competencies and transferrable to any organization irrespective of industry. In contrast, firm-specific human capital cannot be easily transferred to other contexts [17] i.e. to other organizations. From the organizational point of view, firm-specific human capital is more productive than that of general human capital.

The firm-specific human capital can be sub-divided as task-specific and non-task-specific human capital. Workers get task-specific experiences in the current position over time [18]. The non-task-specific human capital is captured from the experiences in prior jobs within the same organization. No doubt task-specific experience makes workers more productive and the non-task specific experience provides a solid foundation for the current job.

An organization usually gets general human capital from the job market. Through working and training and development, workers become firm-specific and task-specific human capital. When workers are shifted to the other departments or processes or activities or promoted to higher positions then their experience becomes non-task specific and accumulates new task-specific knowledge. This is a continuous process. In the case of human resource planning, career planning, training and development planning, succession planning and so on, these dynamics of human capital management must be kept in mind.

7. Human Capital Management (HCM) - Meaning, Nature and Jurisdiction

There is no single or universally accepted definition of human capital management. While defining it, scholars took the opportunity to explore the new dimension in it and try to define it accordingly. As a result, many definitions appear before us. These variable definitions are the main source of confusion in grasping the notion of this concept. Some scholars emphasize the strategic development of human capital and some scholars stress more on measuring the human role in making an organization successful and at the same time some of those high lights both the aspects in their propositions.

Chatzkel defines human capital management as an integrated attempt to manage and improve human competencies to attain substantial superior performance [19]. Whereas Nalbanthian and the co-researchers state that by using metrics HCM measures the value of HC attributes (accumulated knowledge, skills, experience, creativity, and other relevant workforce attributes) and uses that knowledge for effective management of the organization [20]. Kearns believes that HCM is about adding value through human resources; he also mentions that it is also a people development philosophy that expresses human potential in organization value [21]. Human capital management (HCM) is concerned with procuring, examining and reporting on data

that inform the direction of value-adding people management, strategic, investment and operational decisions at the corporate level and the level of frontline management [22]. As an essential characteristic, HCM uses metrics to guide an approach of people management that perceives them as assets and stresses that competitive advantage is accomplished through strategic investments in those assets through employee involvement and retention, talent management and learning and development programs [10]. Thus we can see,

there are two distinct aspects of human capital management - the strategic approach of managing human resources and measuring their contribution to the success of the organization. Overall, it can be said that human capital management (HCM) is a strategic approach to people management for creating value to the business and by using various tools and techniques ascertaining people's contribution or role in that value.

Table 1. Essential Features of Human Capital Management (HCM).

Objective	Managing human capital, i.e. intellectual, social and organizational, etc. to ensure organizational excellence.
Fundamental assumption	Humans are regarded as value-adding strategic resources and organizations can assure its success through investment in human resources.
Perspectives in human capital	There are two perspectives in human capital - individual and collective perspectives. Individual perspective defines human capital at the individual level and a collective perspective defines human capital as the total of individuals' intellectual capital in an organization.
Constituents	The constituents of human capital are - intellectual capital, social capital and organizational capital
Fundamental theme	Through their knowledge, skill, and ability human resources add value to the business by creating intellectual, social and organizational capital.
Strategic intention	Arranging and aligning human capital and measuring to the extent to which human capital contributes to attaining business objectives.
Types of human capital	There are two types of human capital: general and firm-specific. Firm-specific again divided into two categories: task and non-task specific. General human capital refers to the workers having standard competency that is matching with the job market in general. Firm-specific human capital is developed while working in a particular organization. Employees get task-specific experiences in their current position over time. The non-task specific human capital emerges from the experiences in prior jobs within the same organization.
HCM functions	Human capital planning, human capital recruiting (human resource) and procuring (intellectual resourcing), human capital development, human capital maintenance & rewarding, human capital performance measurement and reporting (internal and external).

8. Aligning Human Capital with the Business Objective

One of the essential issues of human capital management is to align or link the firm's human capital with its business objectives. If this streamlining is not possible then the firm's

human capital will not add value to the business. Finn comments HCM is all about confirming that the huge potential of people is linked with the mission and strategic objectives of the business, to maximize the value of the business for their stakeholders [23]. The frameworks or models like strategic fit, resource-based view, etc. in strategic human resource management could play a vital role.

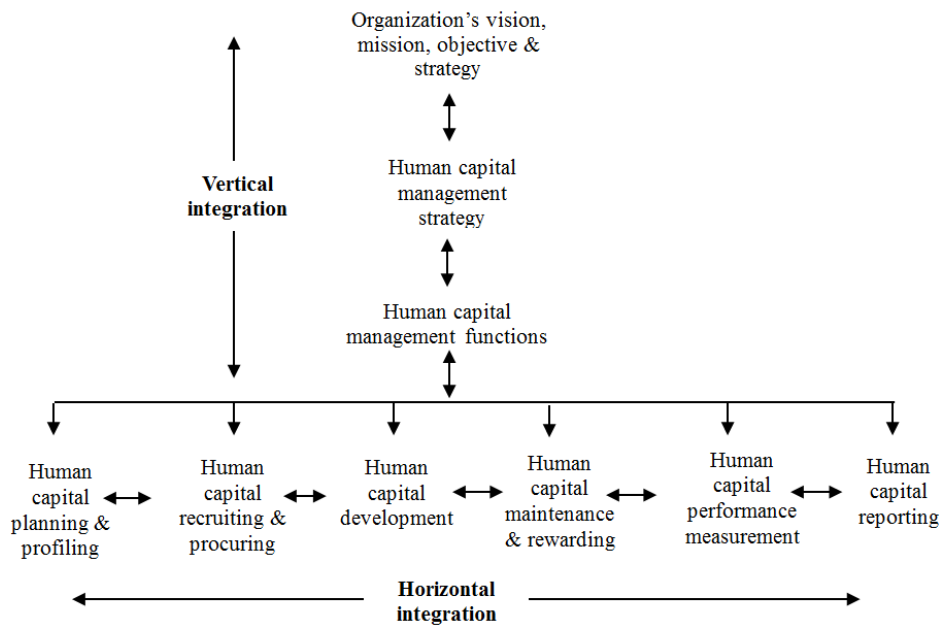


Figure 3. Aligning human capital - The strategic fits.

Strategic Fit

There are two types of fits or linkages - vertical fit and horizontal fit. Vertical fit refers to the link between human resource management practices and the strategic management procedures of the business, and horizontal fit refers to the coordination or consistency among the various human resource policies and practices [24] within the firm. These two fits are mutually supporting and are applied consistently [25] and thus lead to greater success. According to vertical fit human capital management objective must be the in the line of firm's overall objectives, and in case of horizontal fit, human capital management functions and practices should be designed in such a way so that these functions and practices supplement and complement each other and eventually correspond with the business objective.

Resource-based View (RBV)

The core philosophy of resource-based view is if the individual resources are valuable, rare, inimitable and non-substitutable then these can pave the way for sustainable competitive advantage. According to RBV, it is the assortment of resources in a firm, including its human resources, that produces its distinctive character and creates a competitive advantage [26]. Human resources can provide a competitive advantage for the firm, as long as they are distinctive and competing firms cannot replicate or substitute them [25]. The fundamental notion of human capital management is that people of the organization are very unique in terms of their knowledge, capability, experience, attitude, and aptitude, etc. and therefore, valuable, inimitable and non-substitutable, and create strategic capability and competency. According to RBV, the organization must find appropriate human capital, nurture and maintain them and guide their competency to the business objective. Through a purposeful human capital management policies and practices, the human capital of the organization would be aligned with the business objective.

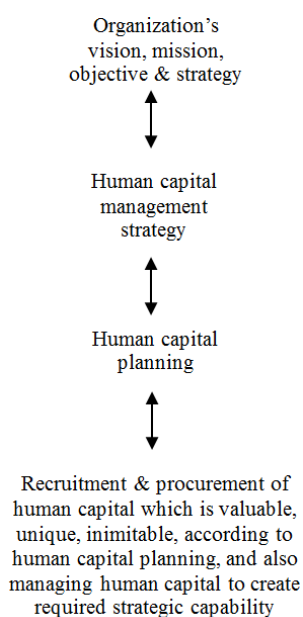


Figure 4. Aligning human capital - The resource-based view.

9. Measuring and Reporting Human Capital - What to Measure and How to Measure and How to Report

Measuring and reporting are an integral part of human capital management. The role of measuring human capital management is to evaluate the effect of human resource practices and the contribution of the workers on the performance of the organization [10]. In a true sense, these are the key concerns of human capital management. This is because it provides the basis for people related decision-making. It also helps in monitoring the effectiveness of human resources practices. It also plays an important role in the case of human resource planning by giving various information on people management issues like required skill, employee performance, training and development, compensation, and so on. Therefore, it is not surprising that there has been an increased interest amongst academics in facilitating enhanced business results by investing in improved HC measurement and data analytic procedures [27]. This measuring can be quantitative as well as qualitative. In this section, three basic issues will be discussed: *what to measure, how to measure and how to report?*

What to Measure

In most of the human capital literature it has been argued that firms should evaluate and analyze the influence of human capital activities on firm's performance, and in growing competitive scenario managers are now in a need to develop a more dynamic mechanism to assess how HRM functions add value to the business McCracken, McIvor [28]. For instance, Thomas along with the fellow researchers have compiled a number of the key queries: what impact can training have on customer retention; does productivity increase with employee tenure; how do leadership development programs improve business performance; and, finally, what is the return on investment from specific human capital initiatives? [29]

There is no complete list for the items that are to be measured. Human capital measurement may cover a wide range of HR-related policies, practices, workforce demography, workflow, job designing, human development activities (investment in people development), employee performance, compensation data, financial benefits of employee retention, cost of employee turnover, cost-saving by HR intervention, the links of HR policies and practices with the organizational performance, and perceptual data (employee survey) and so forth. Therefore, it can measure any HR related policies, practices and initiatives that have implications over the attainment of the business success.

How to Measure

There is a considerable effort to measure human capital and as a result, several methods have been developed in this regard. However, only a few could get acceptance. Several popular models or frameworks are mentioned below.

1. The Balanced Scorecard - Norton and Kaplan devised this performance metric to identify how internal business

functions (finance and accounts, marketing, operation and human resource) are contributing to the attainment of business objectives. The objective of this framework is to counter the tendency of companies to consider short-term financial information in measuring business performance ignoring other business functions. By keeping vision, mission, and objective at the center as guiding principles it streamlines all business functions including HR towards the common objectives of the business. From this model, it is possible to develop an idea of how HR functions fit with the core business objective and other business functions (operation, finance, and marketing) and contribute in achieving business objectives.

2. The Human Capital Monitor - Andrew Mayo developed the 'human capital monitor' to identify the human value of the business or 'human asset worth', which is equal to 'employment cost × individual asset multiplier'. The individual asset multiplier is a weighted average assessment of capability, the potential to grow, personal performance (contribution) and alignment to the organization's values set in the context of the workforce environment (i.e. how leadership, culture, motivation, and learning are driving success).
3. The Human Capital Index (Watson Wyatt) - It links HR practices to the market value of the company. Based on a survey of companies, it is found that there are four major HR practices (total rewards and accountability; collegial,

flexible workforce; recruiting and retention excellence; and communication integrity) have a clear impact on the firm's market value. These four practices could increase value up to 30 percent for the shareholders.

4. The Organization Performance Model - The organizational performance model developed by Mercer HR Consulting based on the elements: people, work processes, management structure, information and knowledge, decision-making and rewards. According to this model, each of these elements plays a different yet cohesive role in the context of the organization and making it successful. It shows how HCM increases organizational performance and, ultimately, shareholder value.
5. The Sears Roebuck model (The Engagement Model) - The Sears Roebuck model is also known as the Engagement Model. The central proposition of this model if employees are satisfied, they will ensure customer satisfaction and customers customer satisfaction will result in more business i.e. improved corporate profits.
6. Human Capital Return of Investment (ROI) - Human Capital ROI or HCROI is an HR metric that evaluates the financial value added by the workforce against the money spent on employment cost. Employment costs include expenditures like salaries, health insurance premiums, retirement plan contributions, and education assistance, etc.

$$\text{Human Capital ROI} = \frac{\text{Revenue} - (\text{Operating expenses} - [\text{compensation} + \text{benefit cost}])}{\text{Compensation} + \text{benefit costs}}$$

7. Human Capital Value Added (HCVA) - Human capital value added (HCVA) is an indicator or measurement of the financial value (profit) an average employee brings to

an organization. This calculation shows how much value an employee can create through his her knowledge, skills, and performance.

$$\text{Human Capital Value Added} = \frac{\text{Revenue} - (\text{operating expenses} - [\text{compensation} + \text{benefit costs}])}{\text{Total number of full time employee}}$$

Besides those above-mentioned models, there are some other effective models and matrices, too. An organization needs to find an appropriate one matching with its context. Human capital measurement can provide a data-driven approach to identify effective workers and management practices and can help in ensuring long-term and sustainable value creation if it is done correctly [6].

How to Report

Usually, there are two types of reporting - internal and external. The internal report is prepared for line managers and top management for business decision making along with various analysis, statistics, and explanations. Usually, internal reporting takes place in the form of management reporting. On the other hand, an external report is prepared for external stakeholders by showing various information on the performance of the business in the form of financial analysis and other performance indicators, and information relating to employee matters, social, environmental and community issues, and so on. From the organization and human capital

point of view, this human capital reporting is very much important. For HR reporting a detailed HR database, documentation of HR-related cost and investment, human resource information system (HRIS), accounting information system (AIS) and an integrated management information system (MIS) are needed for which substantial investment is required. Thus, if HC reporting is done accurately, it would increase the probability of investment and attract promising new talent to the business [30, 31].

10. Human Capital Management Program

Human capital management is not at all an isolated people management initiative rather organization-wide integrated people management program. For that, it is needed to follow a coordinated procedure. Regarding this there is no hard or fast rule or any universal guideline; it is context-specific i.e.

unique to the organization. While crafting a human capital management program following steps can be followed.

1. Determining overall business objective and strategy.
2. Formulating human capital management objective and strategy in the light of business objectives and strategy.
3. Developing human capital policy and practicing to support overall business objectives and strategy.
4. Designing required human capital (intellectual, social and organizational capital) according to the business objective and strategy i.e. devising a human capital management plan.

5. Incorporating human capital initiatives in business activities.
6. Keeping records for all human capital initiatives and interventions.
7. Collecting, analyzing, interpreting people-related activities and measuring corresponding outcomes.
8. Reporting human capital information (internal or external reporting).
9. Evaluating human capital management programs to assess to the extent to which human capital management functions were effective.

Table 2. Difference between human resource management and human capital management.

Issues	HRM	HCM
Fundamental assumption	Considers human as regular business resources.	Considers human as capital, as strategic business resources.
Target audience	It is concerned with all the employees.	It is concerned with all highly skilled dedicated human resources.
The objective of HR functions and practices	HR policies, practices, and functions are generic and administrative i.e. HR policies are designed to manage the workforce effectively and their welfare.	HR policies, practices, and functions are dedicated and designed for managing value-adding people.
Goal	It is a process that ensures the organization has a required human resource to carry out business activities.	It is a process that ensures an organization has a highly-skilled workforce to attain business goals.
Core mechanism	It is a general approach to managing human resources and achieves desired business objectives through people. Routine documentation is involved in managing day-to-day HR activities. There is no mechanism for measuring HR contribution to the success of an organization but employee performance is evaluated regularly.	It is a strategy of aligning human knowledge, skills, capabilities, and expertise, etc. to create value for the business, measure human impact and documentation. Documentation is an integral part of human capital initiatives. Through various matrices, indices, formulas, and techniques it measures HR contribution to the business success and reports to the management.
Documentation and measuring		There are three constituents of human capital: intellectual, social and organizational capital. Intellectual capital refers to the repositories and flows of knowledge available to an organization; social capital refers to the knowledge resulting from networks of relationships within and outside the organization; and organizational capital refers to the institutionalized knowledge possessed by an organization that is stored in policy papers, databases, and manuals, etc.
Approaches	There are two approaches in HRM: hard and soft HRM. The hard HRM sees people as a resource used as a means for achieving business goals, and the soft HRM inspires employers to formulate strategies to gain employee commitment.	

11. Conclusion

There is no dispute that human is the most valuable strategic business resources. As a result, there is a constant endeavor to create value for the business through people. In this connection, there are several contemporary thoughts in human resource management. Human capital management is one of them. This concept got noticeable attention due to its relevance in the knowledge era. There is an opinion that human capital is nothing but the rhetoric of traditional human resource management, a new fad at the corner. Although it is within the domain of human resource management but it has been proven that human capital management is a radical development that views human as strategic business resource and for which investment is needed, and thus it is imperative to measure and report to the extent to which human capital could contribute to the success of the business. The human capital management is not at all a new name of HR rather it is a beginning of a new era of human resource management where HR to be more strategic, more business-oriented, more integrated with other business functions, and more flexible and more future-oriented [32]. It is believed that this paper

would help in making the organization's human capital more strategic, business-oriented and integrated with the overall business.

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