

Adoption of Human Resource Information System in Organisations

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ABSTRACT

Human Resource Information System has become very essential in almost all organisations due to the benefits, its feasibility and reduction of manual work. In India, HRIS is in the emerging phase in order to sustain in the global environment. Both in public and private sector companies, it has been implemented and success has been reaped. The role of technology has brought new innovations almost in every sector. HRIS or Human Resource Information System is a system of gaining, storing, manipulating, retrieving and distributing pertinent information about an organisation's human resources. It is one of the subsystems within the information systems providing an opportunity for HR professionals to become a strategic partner with the top management. With the constant ever changing global environment, HRIS acts as a fulcrum for organisation's inclusive growth. Such advancements become very essential for realising sustainable strategies that are planned for an organisation.

This is a conceptual paper that details on various factors that influences the adoption of HRIS. The various factors are found to be technological factors, organisational factors, environmental factors and psychological factors. The researcher has arrived at the conceptual model which has to be further validated through instrument and development. To sustain in the Volatility, Uncertainty, Complexity, Ambiguous (VUCA) scenario, the organisations has to undergo technological adoption.

1. Introduction

The innovation of information technology through MIS has paved way for emergence of HRIS or Human Resource Information System. It is also referred to as Human Resource Management System or Human Resource Management Information System which now, in today's industrial scenario acts as a significant tool to fulfil the goals of every organisation. HR department is emerging as an information centre, internal consultant, change agent, service

provider, cost manager, business partner, facilitator, and consultant. As HR domain plays a major role in the globalised arena, HRIS has become a necessary criterion to rejuvenate the organisations efficiently and is considered an integral part of every organization.

The mushrooming of HRIS revolutionized the contemporary corporate levels as it brought solutions for inaccuracy, unsecure, procedural delay, out dated method of manual system adopted by the organisations. HRIS acts as a

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prominent integration tool to manage organizations effectively and is a system with enormous applications in personnel administration, salary administration, absence recording, skill inventory, medical history, performance appraisal, training and development, HR planning, recruitment, career planning, negotiations platform. Therefore in today's technological environment, information is wealth and HRIS is an essential spectacle for competent management of human resources. Kavanagh et al. (1990) defined HRIS as a system used to acquire, store, manipulate, analyse, retrieve, and distribute information regarding an organization's human resources. As the whole world is in globalised arena, HRIS system makes a robust support for sustenance of a proficient organization.

Most of the organizations have increased relying on innovative and hi-tech practices like HRIS. This has not only amplified the efficacy of the organization but also the effectiveness of management tasks. It makes human resources to adapt to the constantly fluctuating global scientific environment and creates the organisation to endure in a pioneering manner.

Beckers and Bsat (2002) identified five reasons why companies should use HRIS, namely, increase competitiveness by improving HR practices, produce a greater number and variety of HR operations, shift the focus of HR from the processing of transactions to strategic HRM, make employees part of HRIS, and reengineer the entire HR function. Therefore this study would add more knowledge to the existing literature on adoption of the information system.

2. Literature Review

This study focuses on a thorough literature review that aids in identifying various aspects that

influences the adoption of HRIS in organisations. These aspects are categorised in four major groups, namely technological factors, organisational factors, environmental factors and psychological factors according to their nature. The benefits, barriers and operationalization of new systems or technology that influence implementation of the system in an organisation are mainly coalesced as technological factors. The organisational size, span, structure, culture and the organisational related aspects are combined together as organisational factors that influence adapting to new systems like HRIS. The external business environment including the government support and changes in the business arena are considered to be the environmental factors and personal factors which are the characteristics of an individual user are considered as psychological factors. The consolidation of the different elements into these four major factors was done mainly by investigating their nature and influence in adapting to a new technology or an information system, in general for adapting to HRIS, in specific.

2.1. Technological Factors

Technology is one of the vital factors that influence adoption of HRIS. Technology factor includes a particular person's comfortableness and ease in the usage of the technology. Studies (DePietro et al., 1990 and Yang et al., 2007) show how the technology context and characteristics influence the adoption of the technology in an organisation. The findings from previous research (Seyal et al., 2007 and Alshawi, 2010) emphasise on perceived benefits by the users and the managers as a major factor influencing the adoption of IT technologies like CRM, ERP and web technologies. Apart from these benefits, the operationalization of the technology also influences in adopting a particular system.

Operationalization of technology deals with operation of any new IT systems and measuring the technology. Chong and Ooi (2008) and Tan et al. (2009) argue that the operationalization and potential realisation of benefits and existing organizational adoption capability i.e. how far the organisation has capacity for any adoption of IS like HRIS, has a great importance in adopting a technology.

The advantages of advanced IT adoption are decrease in costs and acceleration in productivity (Lymer, 1997). Studies show that providing collaborative environments (Alba et al., 2005) and improving overall competitiveness (Alberto and Fernando, 2007), have a vital role to play in IT adoption in a firm. Gains and Barriers are the significant characteristics which has a great impact on adoption of innovation technologies. Gains regards with improved levels of service quality, efficiency and reliability which acts as a beneficial tool in an organisation (Oliveira and

Martins, 2010). Barriers include innovation complexity and its compatibility with organizational technology competency and a legacy system that has a huge influence on adoption of technology (Rogers, 2003 and Chong and Ooi, 2008).

In the Australian context, Crawford (1998) identified the inhibiting factors such as lack of awareness, skill, and realization of the benefits and infrastructure issues that has a drastic influence on its adoption. Packalen (2010) found that the main hurdle for adoption of IT in small firms is shortage of IT skills. Security in the forms of confidentiality, integrity, and availability of information assets is the major barrier to the adoption of e-commerce (Lowry et al., 1999; Poon and Swatman, 1999; Jeon et al, 2006). Figure 1 shows that various technological factors derived from studies that influence implementing HRIS in organisations.

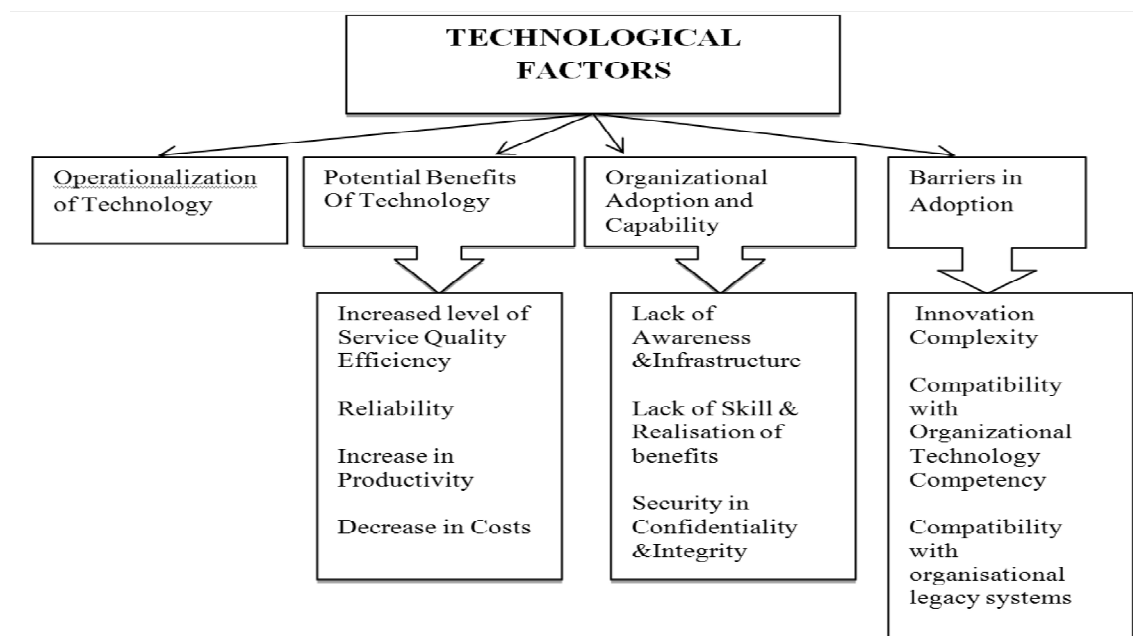


Figure 1 : Components of Technological Factors that influence the adoption of HRIS

2.2. Organisational Factors

Organisational factor deals with how far the organisation supports for the people in the implementation of new systems. Organisation size is important criterion for the adoption of HRIS (DeLone 1981). Small Medium Enterprises (SME) companies pose a difficult task in adoption of IT systems due to lack of optimum financial resources and high initial set-up cost (Dixon et al., 2002; Poon and Swatman, 1999). Moreover, larger firms have adequate financial and technical capability, flexibility and adaptability factors to opt for innovative IT systems in order to fulfil their strategies but not so in the case of SMEs (Yesbank publication, 2009; Barbosa and Musetti, 2010). Cragg and King (1993) identified that the major obstacles for IT adoption in small companies are financial deficiency and insufficient levels of technical capability. Hence the adoption of HRIS is still in infancy stage in SMEs.

Centralisation is the process of having authority of power in decision making particularly lies with the hands of top management in adoption of new IT technologies. High degree of centralization is one of the foremost factors that influence the organisation as the top management are responsible in making strategic decisions (Yang et al., 2007; Jayasingam et al., 2010). Cavaye and Hussain (2007) have studied that it has a great responsibility for the owners or managers in adopting these technologies as they are the determiners. Studies have shown that larger the support from the top management easier for adopting the technologies which lessens the

complications in their adoption (Premkumar and Ramamurthy, 1995; Silva et al., 2007). Various studies (Mirchandani and Motwani, 2001; Dholakia and Kshetri, 2004; Sabherwal et al., 2006) states that CEO's characteristics and his knowledge and attitude regarding information systems play a major role in IT implementation.

Lack of Sufficient knowledge on IT systems for managerial and technical staffs has an enormous impact on the adoption of technologies (Levy et al., 2001; Wainwright et al., 2005; Hashim, 2007). Ahuja et al. (2009) reports that lack of strategic direction and high cost ICT systems are the most important barriers while perceived benefits are great management control which enables for IT adoption in the Indian context.

According to Alberto and Fernando (2007), IT utility enhances the Organisational competency which drives the SMEs to compete uniformly with the larger organisations. Various research studies (Chinyanyu et al., 2011; Srinivasan et al., 2002; Sheth and Sharma, 2005; Wood, 2004) emphasizes that lack of IT infrastructure such as poor communication infrastructure, support of IT vendors and skilled manpower are some of the factors that affect the adoption of advanced IT. A Yesbank publication (2009) contends that there is a general belief that the expenditure escalates towards its up gradation, skill building cost and maintenance rather than it being seen as a one-time investment with some tangible return. The integration of various sub factors that influence the organisational factors are portrayed in Figure 2.

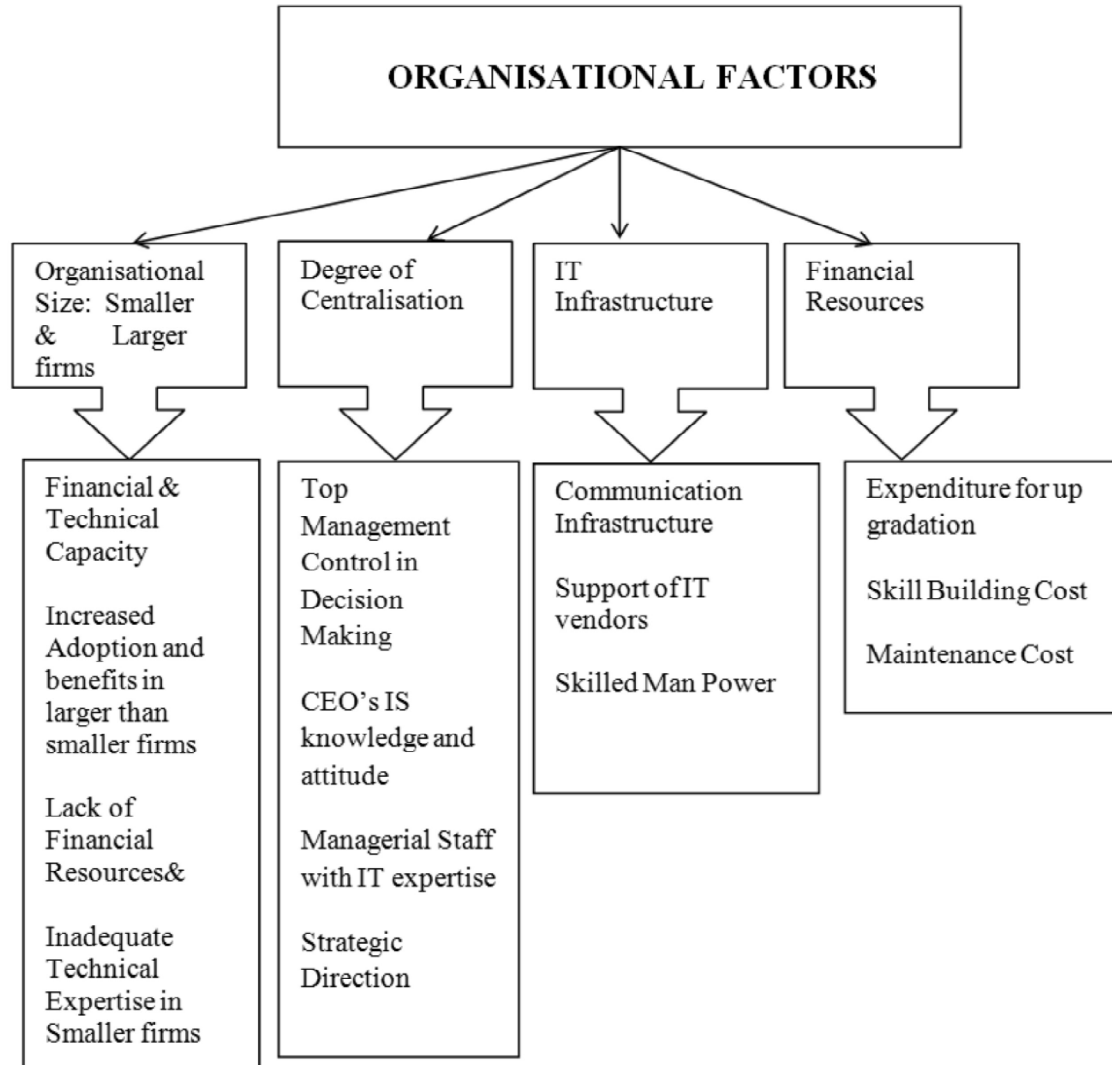


Figure 2: Components of Organisational Factors that influence the adoption of HRIS.

2.3 Environmental Factors

An environmental factor relies on how far the outward pressure has an impact for the introduction of HRIS systems. Environmental factors are mainly the external pressure and competitiveness from the globalised world which has a direct influence on the adoption of HRIS systems. The globalisation and liberalisation policies make an organisation to sustain with

high-tech adaptable technologies like HRIS. Factors like privatisation, competitive capability, government commitment and robust support for the adoption of HRIS systems add to the external influences of adoption of HRIS systems. Docherty (2004) reported that cost savings and external pressure are the vital factors for adopting e-commerce and technology ignorance; limited resources are the barriers to internet adoption.

Globalization and liberalization policies have made businesses more competitive and adaptable to the hi-tech environment (Todd and Javalgi, 2007).

Globalization paved way for rapid innovation, easy entry, lesser trade barriers, privatization and liberalization opening up of new economies, increased share in manufacturing of developing countries and provoked a cordial relationship between partners along the value chain (Humphrey, 2001; UNDP, 2005; Decker et al., 2006). Mendo and Fitzgerald (2005) suggest that ignorance about the dramatic changes that takes place in industry is one of the factors which pose a great weakness for internet adoption by SMEs. Julien and Raymond (1994) confirm that SMEs mostly opt for IT technologies when there is competition among trading partners or when

there is adoption of technology in the industry as a whole.

Particularly, an environment with success stories can be favourable to technology adoption as it makes a robust support to firms (Kearns and Lederer, 2004). Typically, government play a vital role in emboldening the technology adoption by raising awareness, providing training and support including funding (Chong and Ooi, 2008). A number of studies have investigated that the available legal or regulatory environment, government support and commitment are the key factors that determine the e-commerce adoption by SMEs (Chang and Cheung, 2001; Jeon et al., 2006). Therefore these studies result in the factors enlisted in Figure 3, as significant environmental reasons for HRIS implementation in organisations.

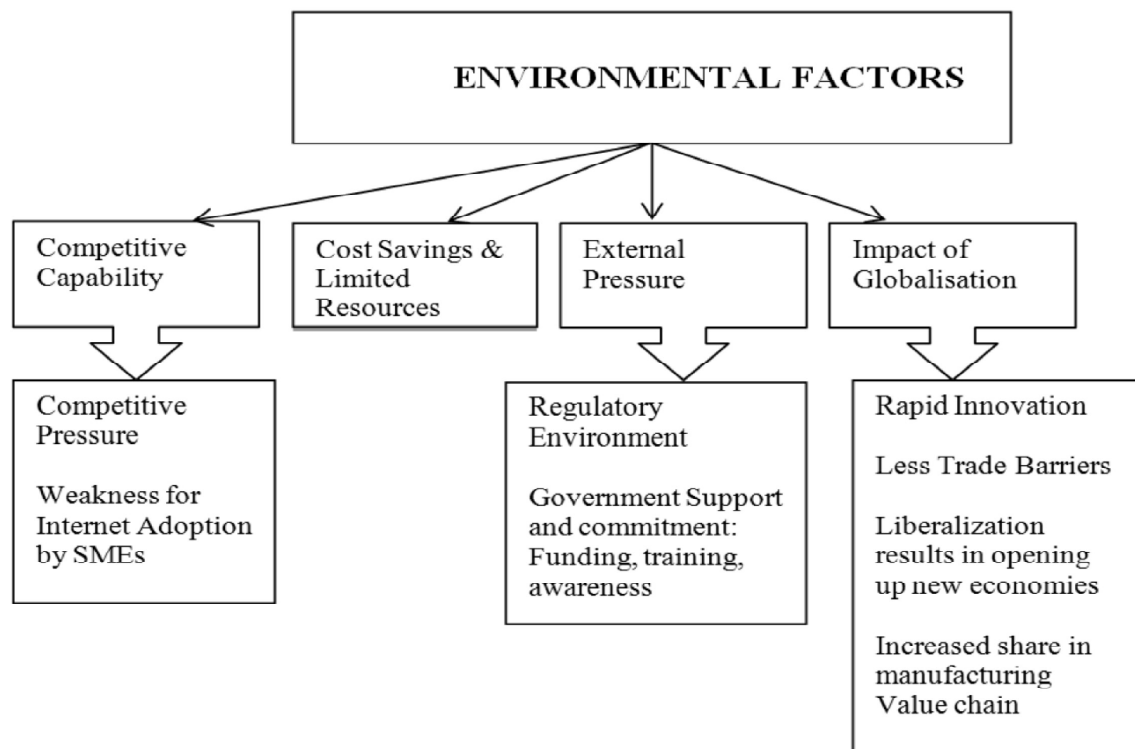


Figure 3 : Components of Environmental Factors that influence the adoption of HRIS

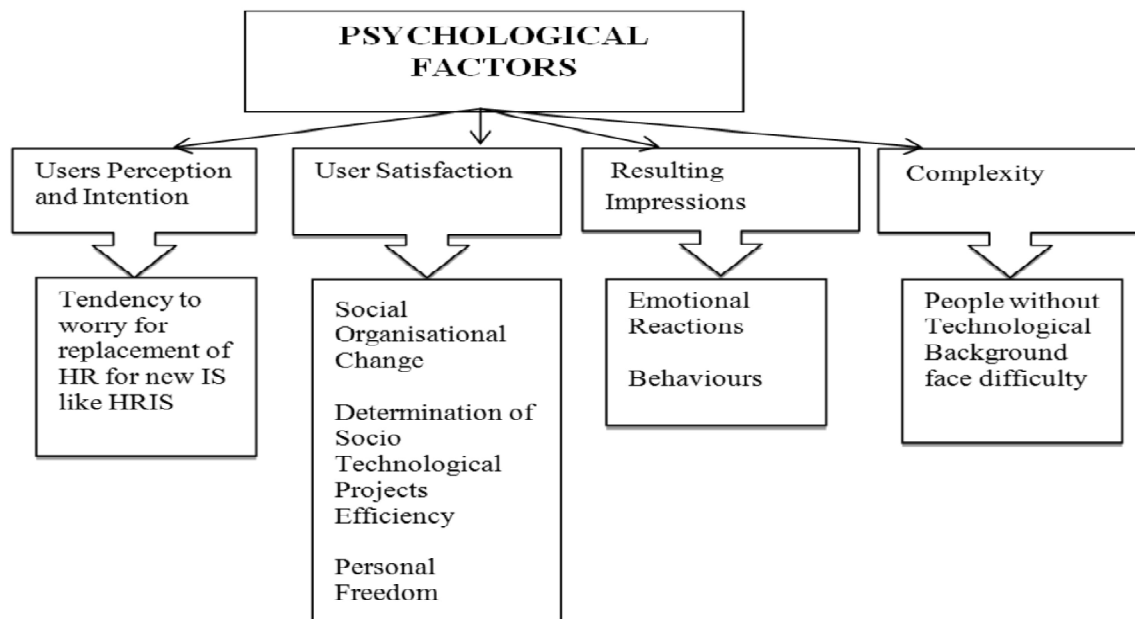


Figure 4 : Components of Psychological Factors that influence the adoption of HRIS

2.4. Psychological Factors

Psychological factors deals with people's perception regarding the introduction of new systems and their reactions after the implementation of new systems. Psychological factors are essential components to be considered for any new system adoption, which includes emotional feeling, perception, and inner satisfaction that influences organisation's efficiency. McAfee (2003) suggested that perceptions of potential users of a new technology have a critical impact on the success of its implementation. These resulting impressions can influence emotional reactions and behaviours and accordingly the success of organizational systems and interventions. Besides customer satisfaction as a success criterion, user satisfaction is a major factor which determines attitude and beliefs (Haines and Petit, 1997). Social side of organization change may be one of the most important factors that affect user's satisfaction (Deng and Gupta, 2005) and as Greenwood (2002) suggests perception is one

of the criterions which determines the success or failure of socio-technical projects.

Fisher and Howl (2004) has found that people who lack technical background and with lower level of computer efficacy have faced difficulties due to the complexities and technical details of new human resources information system. Shrivastava and Shaw (2004) suggests that past HRIS usage has a huge impact on usability perception and the intention to use it consistently which ultimately contributes to the successful HRIS implementations. Human resources professional have a tendency to fear that new introduction of HRIS may replace their jobs or they have critics for already not doing good job (Brooks, 2006). According to Reactance theory, removal of personal freedom by an authority leads individuals to certain reactions (Brehm, 1966) and these reactions are quite often in the opposite direction (Bushman, 1998). Hence taking care of psychological factors and providing a secured feel is a major responsibility of concern while implementing HRIS.

The literature review has compiled the various components that lead to different factors that influence the adoption of Human Resource Information System and technology in an organisation. In order to strengthen the technological development in an organisation the technological factors gives a lucid picture about the eminent benefits of technology, the organisational capability in regard to its adoption and what are the barriers that an organisation face in technological perspective. For an effective organisational improvement, it is the organisational size i.e. small or large firms determine its adoption, apart from this, investments regarding the purchase of software for instalment in the HRIS systems, organisations robust support for IT infrastructure and the top managements support for controlling and adequate financial resources supplements the organisational factors. It is the competitive

pressure and external influences like globalisation and liberalisation provides a platform for the environmental factors because it is the global environment which makes a firm competitive which thus enhances to adopt new IT technologies like HRIS.

The psychological factors gives a clear picture about the users satisfaction in implementation of the technology as they are the pillars in increasing the firms productivity and it is essential to acquire a feedback of employees regarding the introduction of any new technologies like HRIS systems and provided even after the adoption of new technology it is also necessary for the particular firm to know whether the employees feel difficult in its implementation and provide adequate training. The above factors lead to this conceptual study considering that these factors influence the adoption of HRIS in an organisation which is clearly depicted in Figure 5.

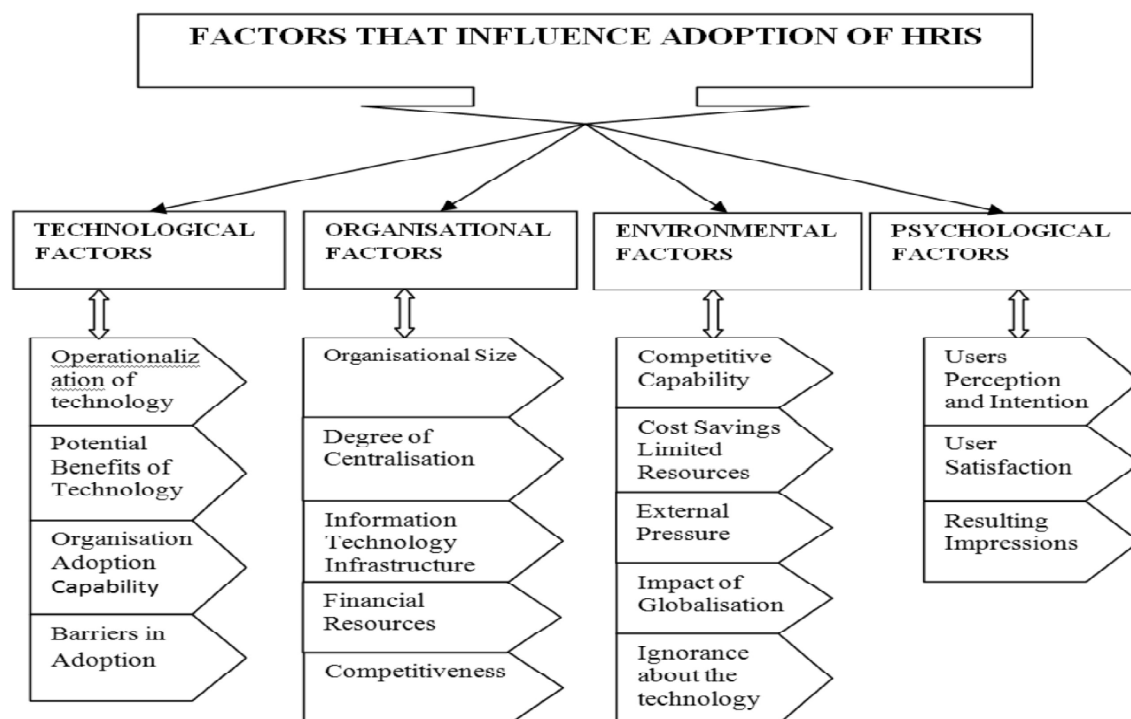


Figure 5 : The Factors that influence the Adoption of HRIS in Organisation

Conclusion

HRIS enhances empowerment of employees as required data for decision making are readily accessible. The implementation of information systems aids in improving business results and long-term performance of key business indicators such as gross margin which is the base for the ideal measurement of successes. HRIS not only facilitates organisational development but also sustainable development because it can be inferred that by paperless online enrolment plan, IBM has saved the company 1.2 million per year on printing and mailing costs. HRIS proves that it is a tool for rejuvenation of organisations efficacy. This ultimately shows that HRIS sows the seed for sustainable development. Insistence on enhancing the various components of the above factors, namely, organisational, environmental, technological and psychological factors will result in successful implementation of HRIS. Subsequent validation of this conceptual model through instrument development and validation is further scope for this study.

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