



Economic recession and investment on human resource information systems (HRIS)

Perspectives on some South African firms

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Abstract

Purpose – The purpose of this paper is to examine the impact of an economic recession on human resource information systems (HRIS) investment decisions by asking: Are there high levels of disinvestment in HRIS during a recession? Are there low levels of trust and confidence in HRIS during a recession? Could there be an absence of concerted commitment in leveraging technology, even in the face of an economic crunch?

Design/methodology/approach – An HRIS impact questionnaire was used, targeting human resource and financial managers. The data obtained were analyzed using *Statistical Programme for Social Sciences (SPSS)*.

Findings – The findings suggest that while a recession is acknowledged, the continued use of HRIS is not considered a risk factor that warrants cost cutting.

Originality/value – This is an original study. It will add value by indicating to management the significance of strategic decision making. The study also points out the need for further research in order to make more sense of certain variables.

Keywords Human resource management, Management information systems, Human resource information systems, Recession, National Bureau of Economic Research, South Africa

Paper type Research paper

1. Introduction

Every business strives to make a profit. When they do, they are then able to retain labor as well as maintain their systems. The opposite is the case when businesses do not make profit. In this case they tend to cut down on some of their investments such as human resources and systems (such as software). Essentially human resources departments as well as other departments are issued daunting mandates: save money, be more efficient, automate as much as possible and make time for strategic planning meaning that organizations must thrive. A situation of this nature is exacerbated by an economic recession.

The National Bureau of Economic Research (NBER, 2010) defines an economic recession as a significant decline in activity spread across the economy lasting more than a few months. It is typified by a decrease in economic activity that causes a rise in the unemployment rate (Nagle, 2010, p. 6), and reduced activity and economic hardship for a substantial number of people (Lee and Shields, 2009). Recession affects both humans and organizations. It reduces government spending (Webber and Swinney, 2010); it could drive organizations bankrupt (Freeman, 2010) and impacts on vulnerable or precarious workers, including migrants (Rogers *et al.*, 2009). Recession is characterised by people holding back from spending as much money as they normally would or demand fewer goods and services and also when a nation's economy recedes



or pulls back (Nagle, 2010). As far back as 1967, Geoffrey Moore loosely called a recession “the period marking the end of expansion (Moore, 1967).” Lockshin (2008) writes that it is a period that “signals worsening economic times.” NextLevelSMG (2008) says it is “a precarious time for marketers and their budgets.” Arnold (2009, p. 803) counsels that the magnitude of a financial and economic crisis calls for a fundamental reassessment of all areas of business. Generally, a recession marks a period of social, political as well as economic change (Rogers *et al.*, 2009).

Today’s businesses have embraced technology for speedier delivery of goods and services as well as staff retention and empowerment. Cost of setting up and maintaining technology can be expensive. During slower economic times, the question that gets asked is how to maintain visibility with reduced cost. Against the backdrop that technology can be expensive to set up and maintain, an economic recession accelerates the dilemma to not invest in or discontinue the use of technology.

Human resources information systems (HRIS’s), also called human resources management systems are usually a critical part of an organizations management information systems (MIS’s). Many theorists are of the opinion that HRIS’s are no doubt growth enablers to organizations (Lengnick-Hall and Moritz, 2003; Beulen, 2009). The introduction of HRIS in an organization does have some impact on change dynamics of the organization. Introducing a new system requires a number of interventions namely environmental assessments and diagnosing organizational problems (Kovach *et al.*, 2002; Nah and Delgado, 2006) determining performance gaps (Ravichandran and Lertwongsatien, 2005), identifying sources of possible resistance (McAfee, 2003; Barut and Dogerlioglu, 2010), taming them and generally getting a larger buy-in.

A HRIS is a systematic procedure for collecting, storing, maintaining, retrieving, and validating data needed by an organization about its human resources, personnel activities, and organization unit characteristics (Kovach and Cathcart, 1999). Kavanagh *et al.* (1990, p. 27) define it almost similarly as the system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information regarding an organization’s human resources. HRIS’s are usually a component of an organization’s strategic philosophy. Every organization’s strategic philosophy is underpinned by their value proposition (Lengnick-Hall and Moritz, 2003). Value to the organization must be customer centric to provide return on investment (Jooste *et al.*, 2009). Value is defined as costs minus benefit (Jooste *et al.*, 2009, pp. 73, 324). What this means is that should an organization decide to invest in a HRIS, it must be based on the conviction that the system must have mutual benefit to the organization and the organization’s audience.

During a recession, human resource departments are under more pressure to prove that their systems are an investment that will pay off, and not just an additional cost. Generally, during a recession businesses scale down expenses. Recession has a way of leaving a backlog of unattended important matters. Webber and Swinney (2010) wrote that even though the economy had exited recession, the strength of economic growth over the short term was uncertain. Against this background, does it therefore make any sense to invest in a HRIS during a recession?

This paper’s real intention is to establish whether businesses will want to invest in an HRIS, suspend, or totally discontinue their use and why, during an economic recession. It also hopes to decipher which organization’s activities are largely supported by HRIS, and the factors that inform the application of HRIS in these activities.

2. Theoretical background

Globalization and its concomitant complexities have brought about certain institutional and structural changes that have compelled researchers to further investigate the state of affairs of every organization. Globalization has opened the door to many benefits. It has encouraged openness and promoted a freer exchange of knowledge, ideas, goods, and services (Ukpere and Slabbert, 2007, p. 349). Innovations, creativity, and investments have blossomed across the globe (Scholte, 2000, p. 19). However, globalization has brought a downward spiral in the wages and working conditions of workers owing to a high profitability drive and the new cut-throat global competition (Martin and Schumann, 1997, p. 160 cited in Ukpere and Slabbert, 2007; Went, 2000, p. 28). Globalization also means that what affects organizations in one part of the world, eventually translates into the same kind of effect in another part of the world.

In an economic recession, the tendency is to cut cost and focus on activities that are extremely relevant. Gunasekaran *et al.* (2001, pp. 349, 353) are in agreement that investment in information technology strengthened an organization's comparative competitiveness while warning that such investments required careful strategic considerations. Schwartz and Zozaya-Gorostiza (2003, p. 58) refer to uncertain and or unforeseen circumstances that may thwart the achievement of benefits from an HRIS investment if careful panning was ignored. Kumar (2004, p. 17) makes mention of "jump events" that may affect HRIS infrastructure value. Essentially, against the backdrop that HRIS provides enormous benefits to organizations, a convincing case must be made to persuade decision makers that the benefits of HRIS outweigh the costs (Lengnick-Hall and Moritz, 2003, p. 369).

Given the enormous positive claims of internet technology, organizations are thus urged to continue to embrace the splendor of technology in order to remain competitive. Management of people at work endures better with appropriate, well-designed HRIS (Grobler *et al.*, 2006; Nel *et al.*, 2008).

2.1 What does a recession bring with it?

An economic recession brings with it a plethora of economic, social, and health discomforts. Freeman (2010, p. 172) writes that a deep, long recession creates long spells of joblessness that entails a huge cost to economic well-being for years. Studies of happiness show that unemployment reduces happiness more than almost anything else, short of the loss of a family member (Winkelman and Winkelman, 1998). The loss of a business and or a job can cause psychological (Marmot, 2004; Dorling, 2009) and health problems (Jin *et al.*, 1995; Bezruchka, 2009). An economic recession even compels a reduced spending on pets (Hess, 2008). Freeman (2010), reporting the studies of Nakamura (2009) and von Wachter and Bender (2004) wrote that young people seeking jobs for the first time as well as experienced workers who lose jobs in a weak job market suffer economic losses that last throughout their lives. Social costs, argues Marais (2010) also linger long after the official end of a recession.

A recession also has the potential to create inter-generational poverty traps as children leave school to find employment to supplement family incomes or are withdrawn by parents who no longer are able to afford education costs (UNICEF, 2009). Another very serious consequence of a recession claims Bernanke (1983, p. 260) is that of debtor insolvency. Given that debt contracts are written in nominal terms, fall in prices and incomes greatly increase debt burdens, while companies' investment plans may also be scaled back due to a high level of perceived risks and uncertainties,

in order to develop resilience to possible “worst-case” scenarios regarding financial and economic conditions (World Bank, 2009).

During a recession, loyalty may be thrown out the door (Andersson and Mattsson, 2010, p. 918). This argument stems from what the authors somewhat refer to as a manufacturers tendency to bully suppliers into lowering their prices or ultimately lose them to those suppliers who are willing to sell at a lower price. Recessions can also increase inequality of earnings and wealth (Freeman, 2010, p. 172). Using data obtained from the Bureau of Labour Statistics, Freeman, explains “earnings increased more for persons with graduate or professional degrees than for college graduates, whose earnings in turn increased more than for high-school graduates or those without college education. Earnings increased more for older than for younger workers, and so on.” While Recession.org (n.d.) maintains that one will still see GDP growth during a recession, it will, however, be coupled with signs like high unemployment levels, housing price declines, stock market losses, and the absence of business expansion. Perhaps this supports why Lewin and Dillon (2010) posit that spending drops during a recession. Prices of food, fuel, and other essential commodities shoot up, and many businesses across all sectors suffer a serious decline in sales turnover and profit. Martin (1982, p. 376) had earlier warned that some other likely effects of a recession included labor hoarding, redundancy, or ruthless asset stripping. Labor hoarding means reducing the intensity of utilization of employees through the limitation or cessation of overtime working, the imposition of short-time working, or the introduction of safety measures of work sharing. Asset stripping is represented by either the closure of individual firms, or in the case of multi-plant companies, the shutdown of certain branches or units.

It must be noted, however, that each organization is different and will face different circumstances. Andersson and Mattsson (2010) contend that businesses react differently to recession. Some businesses would rather invest (expend resources) while others would cut down. Perhaps noting that major investments such as in HRIS is a strategic consideration, Grobler *et al.* (2006), Nel *et al.* (2008), Quelch (2008), Quelch and Jocz (2009), and Kotler and Casoline (2009) are in agreement that it is crucial to preserve an organization’s core long-term objective against short-term financial management’s cost.

Recession could, however, have a good side to it. It is not all gloom and doom. It might result in an increase in resources to take advantage of different types of opportunities such as acquiring resources when prices are low, and developing new products in anticipation of a coming upturn (Andersson and Mattsson, 2010, p. 918). Nxedlana (2008, p. 17) wrote “Demand for commodities has eased due to noticeably slower growth internationally. This, in turn, has resulted in lower commodity prices and will have a moderating impact on inflation and finally cause interest rates to drop in South Africa.” Habiyaemye and Soete (2009) are also of the opinion that the 2008 economic recession served a lesson to many African countries that depend solely on their natural resources for survival. Referring to Habiyaemye (2005), cited by Habiyaemye and Soete (2009, p. 193) maintain that one of the biggest development challenges for Africa is to emancipate its economies from the dependence on natural resources by betting on the gradual accumulation of productive and innovative knowledge. Such innovative knowledge, they contend, must be geared towards economic diversification into productive activities that will enable it to efficiently use its resources to produce valuable goods and services that can compete in the global markets. Not only have individual African states been taught a lesson by the economic

recession, Calitz (2009, p. 7) wrote that the financial crisis and the ensuing recession had reconfirmed the fallibility of markets and governments. The crisis required government intervention to restore confidence in the short term, as well as a thorough review of the regulation of financial markets.

2.2 Components of HRIS

HRIS serves the function of publishing information, automating transactions, and transforming the human resources function (Lengnick-Hall and Moritz, 2003, p. 367). According to Grobler *et al.* (2006) HRIS components include hardware, software, data, procedures, and users. Hardware is the basic physical components of a computer (Lussier, 2000, p. 550). Hardware refers to devices such as central processing unit, monitors, keyboards, scanners, etc., that are used to operate an HRIS (Grobler *et al.*, 2006). Software is a computer program, or set of commands, that instructs hardware to perform various operations such as reading, analyzing, processing, and storing data (Lussier, 2000, p. 551). Stair (1996) contends that software consists of programs and instructions given to the computer and the user.

Data refers to raw, unanalyzed numbers, and facts about events or conditions from which information is drawn (Smit *et al.*, 2007, p. 169). Procedures consist mainly of instructions (Grobler *et al.*, 2006); strategies, policies, methods, and rules humans use to operate a computer-based information system (Stair, 1996, p. 19). User refers to trained personnel (Grobler *et al.*, 2006), managers, decision makers, employees, and others who use the computers to their benefit (Stair, 1996, p. 19). HRIS will require skilled operators to be successfully implemented (Nel *et al.*, 2008).

The right information systems components can empower HR executives with visibility into how they can contribute to improving the company's bottom line. HR cannot only deliver additional value, savings, and increased productivity to the business; it can also more clearly articulate to the CEO and his executive team the vital role HR plays in business success.

HR professionals need information systems components that are delivered fully integrated with a unified HRIS, payroll, benefits, and talent management solution – so that the components can analyze and report on all areas that impact HR – not just benefits or recruiting alone.

2.3 Has HRIS lived up to its reputation?

In their study of the impact of human resource information systems, Beadles *et al.* (2005) found that HRIS was yet to reach its full potential. Citing other sources, Ravichandran and Lertwongsatien (2005), report that the impact of IT on an organization's performance remains under-examined. There are also doubts according to Nel *et al.* (2008, p. 574) that HRIS will solve all HR information problems because HRIS's are complex, expensive, takes a long time to implement, and organizations battle to find readily available technical support.

Overman (1992), however, declares that organizations will experience more efficiency through fast information processing, greater information accuracy, improved planning and program development, and enhanced employee communications. HRIS can also be used to conduct customized performance reviews appropriate to an industry in which skills are hard to quantify. HR will also be relieved from many routine paper-handling tasks [...] (allowing) it to participate more fully in strategic decision making (Haines and Petit, 1997, p. 261). Beadles *et al.* (2005) concur by saying that "ideally, with an appropriate use of HRIS, less people should be needed to perform

administrative tasks such as record keeping and more time would be made available for HR managers to assist by providing data on a strategic level.” Lengnick-Hall and Moritz (2003, p. 365) add that HRIS broadens task integration. This means that managers and employees would be able to assume activities that once were considered the domain of human resource professionals and administrative personnel.

Recent developments in technology have made it possible to create a real-time, information-based, self-service, interactive work environment (Lengnick-Hall and Moritz, 2003). Using the example of Dell, Lengnick-Hall and Moritz wrote “[...] Dell ultimately implemented a full suite of HR services, all managed through self-service over the web.”

3. Statement of research problem

Poor economic climate is usually characterized by cost-cutting and increased regulatory requirements. Yet in the face of all these, HR faces growing demands to communicate the value it creates in ways that CEOs can better appreciate. Sustainability therefore becomes a buzzword. Sustainability is a strong business principle that simply means to sustain positive results over a longer period, for more stakeholders, while continuously reducing cost and negative impact of various kinds. Productivity and profitability depend on making sure everyone is working at his or her full potential. Organizations need to produce more beneficial business outcomes such as productivity, revenue, customer satisfaction, employee engagement. But can they really given the bad turn of the economy?

Be that as it may, during a recession it is important to look beyond short-term results and narrow interests. As we are now in a global recession partly as a result of an over reliance on short-term strategies and a failure to recognize the interconnectedness of various systems within a global economy, we have seen the domino effect that can occur. Intense global competition provides an eloquent reason why sustainability has become such an important trend. Competition for resources, natural and human, is intensifying on a global scale. With the rise of developing nations there are expanded market opportunities and also expanded sources of competition. The only way that an organization can achieve sustained competitive advantage is to have a long-term strategy.

Following competition in a global economy is the need to constantly innovate. Innovation is essential in a world where unforeseeable changes approach us from every direction. Innovation can take the form of small improvements that reduce costs or improve processes in small degrees, or in the form of breakthrough ideas that transform entire organizations. In either case, it is people that make the difference. People are the source of innovation; and people are the key to sustainability.

3.1 Research questions

From the foregoing statement, the following research questions are posed:

RQ1. Are there high levels of disinvestment in HRIS during a recession?

RQ2. Are there low levels of trust and confidence in HRIS during a recession?

RQ3. Could there be an absence of concerted commitment in leveraging technology even in the face of an economic crunch?

3.2 Objectives of the study

The objectives of this study are to determine if organizations discontinue investment in HRIS during a recession, to determine which organizations processes are considered germane to the existence of the organization, and to determine the degree of (mis) trust in HRIS.

The above objectives will help to delineate the direct benefits (if any) of HRIS to an organization. One would also be able to establish if any correlations exist between investment in HRIS and an organizations profitability.

4. Methodology

This study is a survey. The population represents organizations that utilize the HRIS. Since the study focussed specifically on organizations using HRIS, it was necessary to use a purposive (non-probability) sampling method, thereby ensuring that the samples possess the attributes of the population. For data collection, an HRIS questionnaire was obtained from Hussain *et al.* (2007) and was then modified to suit the purpose of this study. Acknowledging that the focus of the study was to understand whether it makes any economic sense to the organization to invest in an HRIS during a recession, the study posed closed-ended questions and Likert scale questions to the respondents so that their responses are focussed in the manner that it is suitable for data capture and data analysis.

Validity of the data collection instrument was ensured in two ways: it was earlier used in a study by Hussain *et al.* (2007); and professionals and academics in the field of human resources were consulted to ensure that the questionnaire collected the relevant data. A reliability statistical test, using the Cronbach's α , was done and a coefficient of 0.757 was achieved for the closed-ended items (nine questions) on the usage of HRIS and another coefficient of 0.898 was achieved on the collection of the Likert scale items (nine questions) on the perception of the effect of recession. These figures are acceptable as they are close to 1 and hence the reliability is acceptable. Previous studies (Brown *et al.*, 2009, p. 541; Chen *et al.*, 2006, p. 490; Khalili and Hossein, 2003, p. 30) stated that a reliability coefficient exceeding 0.7 for any test or scale was the minimum acceptable reliability coefficient.

The sample for this study was derived from construction, manufacturing, transportation, and logistics organizations operating in South Africa. As indicated earlier, these organizations have been chosen based on the assumptions (and following secondary sources) that each uses HRIS. If the secondary sources are to be believed, it can then be assumed that these organizations do not operate manually or without some form of technology. Out of the 50 questionnaires that were administered to respondents (comprising managing directors/finance directors and human resources directors) that participated in this study, only 45 of them were returned. Out of the 45 questionnaires that were returned, 39 questionnaires were completely answered and useful for data analysis. SPSS was used to analyze the data collected. The analyses are in the form of descriptive information and correlation coefficients of Pearson's. The finance directors were chosen because they mostly influence decisions regarding expenditure in these organizations, while human resources directors were chosen because of their presumed familiarity with HRIS.

5. Findings

At the beginning of the paper three research questions were posed. Are there high levels of disinvestment in HRIS during a recession? Are there low levels of trust and confidence in HRIS during a recession? Could there be an absence of concerted commitment in leveraging technology even in the face of an economic crunch?

5.1 Respondents' profile

The organizations are different in sizes – in terms of the numbers of employees and the annual turnover. Majority of the respondents are from organizations (35.9 percent) having between 10 and 25 employees and also from organizations (43.6 percent) generating annual turnover that is more than Rs 1,000,000 (Tables I and II).

It is important to state here that, despite the differences in the sizes of the organizations, they all use HRIS and the respondents have a general understanding of what HRIS stands for.

5.2 Organizational level of respondents

The respondents are made up of human resources persons and general managers as well as financial managers. Managing directors are basically owner-managers and financial managers are synonymous to the owner-managers. In total, 46 percent of the respondents are human resources persons. As indicated in the section on “other indications,” later on, the bigger organizations tend to have the position of human resources persons (Table III).

	Frequency	%	Cumulative %
<i>Valid</i>			
< 10 employees	4	10.3	10.3
11-25 employees	14	35.9	46.2
26-50 employees	9	23.1	69.2
51-100 employees	10	25.6	94.9
> 100 employees	2	5.1	100.0
Total	39	100.0	

Table I.
What is the size of your organization?

	Frequency	%	Cumulative %
<i>Valid</i>			
< Rs 100,000	3	7.7	7.7
Rs 100,001-Rs 250,000	2	5.1	12.8
Rs 200,001-Rs 500,000	7	17.9	30.8
Rs 500,001-Rs 1,000,000	10	25.6	56.4
> Rs 1,000,000	17	43.6	100.0
Total	39	100.0	

Table II.
What is the annual turnover of your organization?

	Frequency	%	Cumulative %
<i>Valid</i>			
Human resources manager	18	46.2	46.2
Managing director/financial manager	21	53.8	100.0
Total	39	100.0	

Table III.
What position are you?

5.3 Are there high levels of disinvestment in HRIS during a recession?

The findings show that there is no significant disinvestment in HRIS despite the recessionary trends. This is indicative from the responses to the question: “will you, despite the recession, continue to invest in HRIS?” (Figure 1).

In total, 75 percent of the respondents strongly agree, agree, or are neutral (18 percent) to a continuous investment in HRIS; despite the recession. By “continue to invest” it simply means keeping the HRIS operational in the organizations by upgrading and paying the annual licenses as the case might be. This makes a lot of sense as the cost of upgrades (recurrent cost) are not as much as the initial cost of acquiring (capital cost) the HRIS.

5.4 Are there low levels of trust and confidence in HRIS during a recession?

The following questions were posed to the respondents and they had the option of answering in a closed end format. That means that they either answer yes (2) or no (1). From Table IV the function that HRIS is mostly used for is labor statistics and reporting. In many circumstances this is a statutory requirement. On the other hand HRIS is least used for performing induction and staffing.

This may be as a result of the fact that majority of the respondents, as earlier indicated, are from organizations with relatively fewer employees. It may be possible and manageable to do inductions and staff trainings that are not system based. There was, however, no convincing indication that the low levels of usage of most of the functionalities of the HRIS were due to recession.

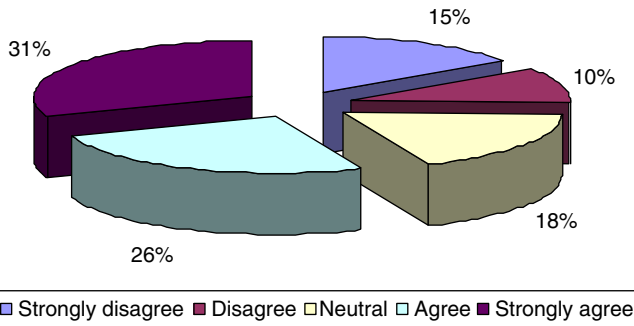


Figure 1.
Continue investing
despite recession

	n	Minimum	Maximum	Mean	SD	Variance
Do you perform labor statistics/reporting with HRIS?	39	1	2	1.82	0.389	0.151
Do you perform compensation management with HRIS?	39	1	2	1.59	0.498	0.248
Do you perform training and development with HRIS?	39	1	2	1.59	0.498	0.248
Do you perform workforce planning with HRIS?	39	1	2	1.56	0.502	0.252
Do you perform succession planning with HRIS?	39	1	2	1.38	0.493	0.243
Do you use HRIS to manage performance?	39	1	2	1.36	0.486	0.236
Do you perform job analysis with HRIS?	39	1	2	1.23	0.427	0.182
Do you perform induction and Staffing with HRIS?	39	1	2	1.21	0.409	0.167
Valid n (listwise)	39					

Table IV.
Preferential usage of
HRIS functionalities

5.5 Could there be an absence of concerted commitment in leveraging technology even in the face of an economic crunch?

Judging from the results from the first question, and from the point of view of HRIS, it is indicative that the recession has no significant influence on an organization's commitment to technological inclinations. This indication may be as a result of two factors. First, the fact that the benefits acquired from the use of technology, in this instance – HRIS, are usually equally needed even in time of recession. Second, the initial investments in HRIS have already taken place (sunk cost) and in many cases are attached with an agreement of continuous upgrade and licensing. This is also evident in Table V.

5.6 Other indications

Authors such as Lengnick-Hall and Moritz (2003) and Beulen (2009) believe that HRIS is essential to the human resource department of an organization in a number of aspects. Rating the respondent's perception of the uses of HRIS, they are of the opinion that HRIS had made their departments very important in their organization (ranking first) and it has also decreased time spent on paper work (ranking second). On the contrary, they do not significantly believe that HRIS has cut cost in the organization in terms of staff salary expenditure (Table VI).

Referring again to the responses to the first question, the sizes of the organizations do correlate with the responses given. The correlations Table VII shows that there are relationships as well. It indicates that bigger organizations will not only continue to upgrade their HRIS but, may even consider a new investment in the acquisition of HRIS.

The correlation Table VII shows that the size of an organization in terms of number of employees and annual turnover do influence the functionalities that they use in the HRIS. For instance, there is a positive relationship between the size of an organization and the use of HRIS for workforce planning, training, and job analysis. This implies that the bigger an organization, the more likely they use these HRIS functionalities.

Also for other functions like compensation, induction, and performance management, the size of an organization is a determining factor (see Table VI).

	<i>n</i>	Minimum	Maximum	Mean	SD	Variance
My organization's HRIS has made the HR department very important to the organization	39	2	5	4.10	0.940	0.884
My organization's HRIS has decreased time spent on processing paperwork	39	1	5	3.90	0.940	0.884
My organization's HRIS has decreased time spent on communicating information within the organization	39	2	5	3.72	1.191	1.418
My organization's HRIS has promoted the organization's competitive advantages	39	2	5	3.56	1.142	1.305
My organization's HRIS has decreased data input expenses	39	1	5	3.41	1.069	1.143
My organization's HRIS has improved strategic decision making	39	1	5	3.28	1.146	1.313
My organization's HRIS has decreased the overall HR staff/s salary expenses	39	1	5	2.46	0.884	0.781
Valid <i>n</i> (listwise)	39					

Table V.
Perception of the impact
of the usage of HRIS
functionalities

Table VI.
Correlation of HRIS
functionalities with the
size of the organization

	What is the size of your organization?	What is the annual turnover of your organization?
<i>Do you perform training and development with HRIS?</i>		
Correlation coefficient	0.800**	0.477**
Significance (two-tailed)	0.000	0.002
<i>n</i>	39	39
<i>Do you perform workforce planning with HRIS?</i>		
Correlation coefficient	0.734**	0.527**
Significance (two-tailed)	0.000	0.001
<i>n</i>	39	39
<i>Do you perform job analysis with HRIS?</i>		
Correlation coefficient	0.530**	0.209
Significance (two-tailed)	0.001	0.202
<i>n</i>	39	39
<i>Do you perform induction and staffing with HRIS?</i>		
Correlation coefficient	0.471**	0.394**
Significance (two-tailed)	0.002	0.013
<i>n</i>	39	39

Notes: **, *Correlation is significant at the 0.01 and 0.05 levels, respectively (two-tailed)

Table VII.
Correlation of decision
based on recession with
the size of the organization

	What is the size of your organization?	What is the annual turnover of your organization?
Spearman's ρ		
What is the size of your organization?		
Correlation coefficient	1.000	0.640**
Significance (two-tailed)		0.000
<i>n</i>	39	39
What is the annual turnover of your organization?		
Correlation coefficient	0.640**	1.000
Significance (two-tailed)	0.000	
<i>n</i>	39	39
Despite the global economic recession, the organization will invest in updates required in the HRIS		
Correlation coefficient	0.627**	0.574**
Significance (two-tailed)	0.000	0.000
<i>n</i>	39	39
Despite the global economic recession, the organization will invest in acquisition of a HRIS		
Correlation coefficient	0.743**	0.571**
Significance (two-tailed)	0.000	0.000
<i>n</i>	39	39

Note: **Correlation is significant at the 0.01 level (two-tailed)

6. Further studies

As indicated in the previous sections, the findings suggest that there may be a need to carry out more studies that focus on different strata of respondents. The stratification may be based on the numbers of employees in the organization or the annual turnover of the organization. It may also be proper to use more respondents to arrive at more reliable findings that may be generalized.

The positive correlations among some variables suggest that there are relationships that may need to be further researched.

7. Conclusion

The introduction of HRIS in an organization does have some impact on change dynamics of the organization. This statement could not be truer in a recession. During a recession, human resource departments are under more pressure to prove that their systems are an investment that will pay off, and not just an additional cost. The study has significantly indicated that HRIS serves an important function in organizations, especially the large ones. The study has also disclosed that having made initial investments (otherwise called sunk cost), organizations become obliged to continue to invest (in terms of renewal of licences) in order to maintain their systems. It was also found that bigger organizations tend to rely more on HRIS than smaller organizations that may not need solid MIS to undertake certain human resource functions.

The study is, however, inconclusive with regards to virgin investments in HRIS's. One could then guess that it might not be an attractive option during a recession, for an organization that has not invested in HRIS.

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