The use of big data and hris by hr practitioners in new zealand: empirical evidence from a longitudinal study

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ABSTRACT

This paper stems from a longitudinal research project over twenty years. The influence of ‘Big Data’ on the HR practitioner’s roles, goals and activities is huge in how their function is creating and adding value to the organisation. Big data offers HRM major opportunities to increase its value add in more functions and areas of HR as well as the strategic influence within the organisation, by delivering predictive analytics. HR practitioners in New Zealand have been exposed to big data and the use thereof through their HRISs. The quantitative methodology adopted was an e-survey; a questionnaire containing structured closed questions. The target population was limited to HRINZ members that had registered to participate in HR research requests that HRINZ provided links to; the total number of HRINZ members in this category was 635. Fundamental capabilities of the HRIS should be used to assist in delivering ultimate customer service and a good service to their employees. Concrete recommendations are proposed for HR practitioners and managers in the use of big data such as to use analysts to analyse the big data for them so that it becomes useable as knowledge to make wise decisions in future. Recommendations and the conclusion form the last two sections.

INTRODUCTION

Data is usually gathered by organisations and then analysed to get information to use for various reasons depending what their business is. Data becoming information can identify or point out business trends, prevent disasters, prevent diseases in countries, combat crime and so on. This sounds easy to do but analysts meet difficulties with large data sets in areas including Internet search, finance and business informatics.

The term ‘Big Data’ is used broadly for data so large or complex that traditional data processing applications are inadequate. Challenges include analysis, capture, curation, search, sharing, storage, transfer, visualization, and information privacy. The term often refers simply to the use of predictive analytics or other certain advanced methods to extract value from data, and seldom to a particular size of data set. Another view is that big data is an evolving term that describes any voluminous amount of structured, semi-structured and unstructured data that has the potential to be “mined” for information. Although big data doesn't refer to any specific quantity, the term is often used when referring to petabytes and exabytes of data (Rouse, 2015).

In today’s global economy Human Resource (HR) practitioners must be prepared to meet the considerable challenges and expectations posed by the continuing gathering of data, the analysing of it to become information
leading to knowledge and then the using of the knowledge to make wise decisions. The influence of ‘Big Data’ on
the HR practitioner’s roles, goals and activities is huge in how their function is creating and adding value to the
organisation. An example of what is meant is when an organisation is formed in order to fulfill a specific mission or
purpose but cannot be achieved unless the organisation searches for and selects the best potential employee with the
right skills, knowledge and aptitudes (KSAs) for each identified job or position. It is imperative, therefore, that an
organisation would design and implement an appropriate information system in order to attract the best suitable
employees in order to achieve its desired goals and objectives. This is where big data is used by the HRM
department if they have implemented a human resource information system (HRIS) (Nel, Werner, Botha, Du Plessis,
Mey, Ngalo, Poisat & Van Hoek, 2014).

HR practitioners manage the most valuable asset in their organisations, namely employees, in order to achieve their
organisational goals. Therefore, HR practitioners should look for opportunities to build appreciation and application
into the strategic, tactical and operational planning of the organisation, and they should also keep this in mind when
advertising vacant positions. HR practitioners play the leading role in providing support in designing job
specifications, placing the correct advertisements, executing the selection and interviewing process, signing
employment contracts with job descriptions and inducting the newly appointed employees. In smaller organisations
these activities are generally done by HR consultants on behalf of the organisation. They also advise on the
remuneration scale and level which will fit the employee the best. The employee’s skills and expertise play a huge
role in this decision, hence the use of collected data and information or their HRIS.

HR practitioners in New Zealand have been exposed to big data and the use thereof through their HRISs in adding
value in organisations to be successful. The roles and activities of both the employers and HR practitioners have
changed over the years and this study endeavours to shed more light on the use of big data and HRIS. In this paper
six closely related themes are analysed and discussed: Knowledge and the use of HRIS systems, succession planning
for managers, assessing employee attitudes, employee training and development, workforce productivity and output,
and managing of labour costs.

PROBLEM STATEMENT

From the research problem, taking into account the broader focus on HRs involvement in their organisations in
adding value, one realises that there is a need to consider to what extent HR practitioners in NZ organisations use
big data and the HRISs available to contribute to the success and competitiveness of organisations in the current
situation.

OBJECTIVES OF THIS STUDY

The past decades several studies were done in NZ among HR practitioners’ roles, goals, and activities including
their competencies, future capabilities, and challenges. The ultimate objective of this study is to determine the extent
to which the current contribution of the HRM department is in using big data and their HRIS to achieve their
organisation’s goals. The current study’s data is used and with previous studies’ predictions by HR practitioners. By
comparing this study of NZ organisations with previous studies add more value and it informs the reader of how
changes have taken place over the past almost twenty years in NZ’s HR profession.

METHODOLOGY
Background

A very comprehensive HRM questionnaire covering 358 items to identify HRM and management trends was jointly compiled in New Zealand and Australia in 1994: (IPMNZ, 1994). The same questionnaire was used with permission for a survey to identify the future competencies and roles of HR in those countries for the year 2000 by the Human Resource Institute of New Zealand. The same questionnaire was modified and refined and used again in 2000 by Burchell (2001) in association with the Human Resource Institute of New Zealand (HRINZ) to determine a future perspective on human resources in 2010 in New Zealand. The final section of the said questionnaire sought to obtain demographic information from respondents. The same questionnaire was used with permission after minor editorial modifications for an identical survey in South Africa in the last quarter of 2002. The topics covered in the questionnaire included human resource goals, roles and activities, and so forth. Due to the magnitude of the survey only a small section is analysed and reported upon in this paper.

The quantitative methodology adopted was an e-survey; a questionnaire containing structured closed questions. This involved the selection of a sample of people from the HR practitioner population in NZ to ascertain how factors differ, and to make inferences about the population, or in other words generalising from sample to population. Reliability of this study was seen as high (15.4% responded) as previous leading HRM studies conducted in NZ were successful with a response rate of 41%, 11% and 34% respectively.

Sample selection

The study focused on HR practitioners in NZ organisations who are registered as members of the Human Resources Institute of New Zealand (HRINZ). HRINZ have 3600+ individual members who are involved in the management and development of HR in private and public sector organisations throughout NZ. The target population was limited to HRINZ members that had registered to participate in HR research requests that HRINZ provided links to; the total number of HRINZ members in this category was 635. A total of 119 members responded but 98 questionnaires were fully completed and usable resulting in a 15.4% response rate.

Data collection

The data was collected via the e-survey, which was a repeat of previous studies and therefore a very important longitudinal study. The invitation to participate went to 635 members of HRINZ.

Questionnaire

The questionnaire consisted of questions to adequately explore each of the HR themes researched in this study. All the questions in the questionnaire were closed questions. Only six closely related themes are covered in this paper but due to the size of the study and length limitation for this paper not all the information could be discussed. The Tables reflect the research questions used in this paper, and the rationale for using the six specific themes is discussed later.

LITERATURE REVIEW

Background

Du Plessis (as cited in Du Plessis et al, 2015: 273) is of the opinion that collected data becomes information, which then leads to knowledge and gives us the wisdom to make wise decisions. These decisions are made in order for the organisation to be one step ahead of its competitors. Wise decisions should form part of the strategic plans that organisations make for their future operations. He goes on by saying that the HR department should always be collecting data so that it is able to make wise decisions. The term ‘big data’ was basically unknown until 2013 but it
has become a buzz word, and it is now applied to almost every facet of a business. Big data offers HRM major opportunities to increase its value add in more functions and areas of HR as well as the strategic influence within the organisation, by delivering predictive analytics. Although big data doesn't refer to any specific quantity, the term is often used when speaking about petabytes (approximately a thousand terabytes) and exabytes (exa means one billion billion, or one quintillion bytes that are a billion gigabytes) of data, much of which cannot be integrated easily.

Because big data takes too much time and costs are huge to load into a traditional relational database for analysis, new approaches to storing and analysing data have emerged that rely less on data schema and data quality. Instead, raw data with extended metadata is aggregated in a data lake and machine learning and artificial intelligence (AI) programs use complex algorithms to look for repeatable patterns. Big data analytics is often associated with cloud computing because the analysis of large data sets in real-time requires a platform such as Hadoop (a free, Java-based programming framework that supports the processing of large data sets in a distributed computing environment) to store large data sets across a distributed cluster and MapReduce (software framework that allows developers to write programs that process massive amounts of unstructured data in parallel across a distributed cluster of processors or stand-alone computers) to coordinate, combine and process data from multiple sources according to Rouse (2015).

Dunn, (as cited in Carty, 2014) says that to harness big data, HRM needs to change the way they collect data. They should think of hiring more data specialists, make sure that the data is relevant, and break down what big data has to offer about how specific departments are performing, and are likely to perform, workforce productivity, labour costs, training and development, succession planning and even assessing employee attitudes. Boese (as cited in Carty, 2014) is of the opinion that if organisations fail to do this HRM's view on the use of big data will never change. It is now the time for HRM to stop reporting and start predicting. The biggest opportunity that big data offers to HRM is in predictive analytics around high-volume, repeatable processes, and the example Dunn uses is recruitment (as cited in Carty, 2014). HRM has plentiful access to data, for example payroll records, training and development, succession planning, employees attitudes, or data on absence and staff turnover. It needs to be more purposeful in collecting this data. Dunn (as cited in Carty, 2014) also says that HRM must change how they use data. HRM relies on data to be able to do proper and useful planning for the success of the organisation. According to Dunn, HRM should take into consideration the three Vs of big data (as cited in Carty, 2014), namely:

1. volume: the huge amount of data being generated and received from various sources;
2. velocity: the need to analyse and to take action where and when necessary; and
3. variety: the ability to analyse data in a range of formats.

One could add to this list a fourth V, namely veracity — whether the data is reliable and accurate, according to Dunn. HR practitioners should learn how to analyse data in both structured and unstructured formats. Structured data are data stored in a system in a defined, orderly way (such as traditional absence records). Unstructured data are data spread across multiple media and lacking unifying structure (such as video CVs and social media discussions). HRM needs new techniques to improve the understanding of the dynamics enabling HRM to integrate into organisational strategy. This could allow HR professionals to better prepare for situations in which the HR specialist could take charge of facilitating HRM integration and becoming a strategic partner of the organisation. HRM needs a team and resources that are coordinated well in order to perform effectively and efficiently.

**Big data and HR**

HR practitioners should ensure that line managers do periodic performance appraisals (twice a year, for example) to assess the performance and attitudes of their employees as well as the assessment of training and development requirements, labour costs and productivity. HR departments should have the capability and capacity to deploy resources to achieve organisational goals. The HR department can ensure that the organisation stays one step ahead of its competitors and maintains its competitive advantage. Firstly, the basic or fundamental capabilities of the HRIS
should be used to assist in delivering ultimate customer service and a good service to their employees as well. The process of HRIS begins with the recruitment of the right person for the right job at the right time, so that the employee adds value to the organisation throughout his or her employment period. HRM bases their strategic planning on what resources they have available, where these resources are and how readily they are available; all these records and data could be retrieved from their (Grant, Butler, Orr and Murray, 2014).

Figure 1, below, depicts the strategic influence of big data on the organisation. Big data is collected by the organisation in various ways. It could be from internal surveys (larger organisations) or even through firms specialising in research and collecting of data. This data is then entered by the HR department into their HRIS and is available, after was analysed, for strategic planning by HR and the organisation. Structure follows strategy and the organisation’s goals, vision, mission, objectives and even the organisational culture is determined by the data which is now in a usable form, knowledge. The mentioned strategy further leads to HR activities and the organisation’s resources coordination which leads to policies, procedures and so on to be implemented (or amended) and it has a huge influence on the organisation’s revenue. A successful organisation has satisfied and successful employees and due to their success the employees could be remunerated at market level or even higher depending on the industry and the quality (KSAs) of employees.

Figure 1: Strategic influence of big data on the organisation

Source: Du Plessis (as cited in Du Plessis et al, 2015: 274)

Du Plessis and Frederick (2012) refer to the importance of technology in any management operation. The challenge for HRM is to develop and introduce a policy and paper framework and system that enhance the partnership
between them, supervisors, and employees. Advances in technology always present the promise of cost savings and doing work faster and more effectively.

**Big data and HRIS**

Many human resources information system (HRIS) products are available on the market for both large and smaller organisations. These products have become more affordable and easier to use, and allow organisations to customise them to their own unique needs and requirements. Du Plessis (as cited in Nel et al, 2012) are of the opinion that the HRIS forms part of the organisation’s larger management information system (MIS), which also includes accounting, production, marketing and other functions. The HRIS is not only used to improve information and HR processes, but also as a diagnostic and analytical tool to determine the extent to which organisational goals are achieved. A sound HRIS maps out all jobs and organograms within the HRIS system and job design and proper structures enables tasks to be easier for the HR practitioner. In the case of a resignation for example it should be reflected in all reports automatically for the ease of organisational reporting, including the scheduling of exit interviews with the HR practitioner and other termination procedures to be followed.

Today, HRM is more involved with the succession planning of the organisation and invests more in training and development. HRM is also more up to date with market related salaries, incentive schemes and the use of electronic recruitment to reach a global pool of possible candidates. The modern HR practitioner in New Zealand is more of a HR generalist with a good understanding of business and organisational strategies, and responsible for all HR functions and activities. HR generalists have in-depth knowledge of every HR functional area, employment relations (particularly employment law), management, safety and health, employment equity and also the global workforce.

The global economic climate has become increasingly turbulent, businesses seek to keep ahead of the competition by working faster and smarter; by raising productivity levels per employee while, at the same time, increasing innovation and minimising costs (Chavan, 2009). Employment security is no longer guaranteed, and loyalty from employees is no longer a given. Companies have always faced many challenges, but at no other time have the business challenges become more pronounced, with rapid and volatile change, as in the 21st century (Du Plessis, 2014; Jørgensen, Owen, & Neus, 2009). Managers face complex business environments in which there are many competing interests. Working out how to make the best use of the intellectual capital they have at their disposal in the form of existing productivity tools and employee knowledge to drive productivity can be a major challenge for many of them. This research considers the use of big data and the HRISs used in organisations to use this big data of HR that can be used to drive high workplace productivity in a global environment.

**ANALYSIS OF THE RESULTS**

**Comparison of the profile of the respondents with previous studies in NZ**

A study was executed in 2000 by Burchell (2001) in association with HRINZ to determine a future perspective on HR in 2010 in NZ. Using five related themes a study was executed in 2008 by Paine (2008) and a repeat of the 2000 study was executed in 2010 by Nel and Du Plessis (Nel & Du Plessis, 2011). Some of the comparisons are depicted in Table 1, 2 and 3 below. Paine used themes not discussed in this paper therefore her comparisons are not reflected in the Tables below.

The profile of the respondents is important to add value to their opinions. In the current study in NZ, the most frequent title was HR Manager (46.7%), and the next most common title was HR non-management (16.7%). Those two titles accounted for 63.4% of the reported titles. There was a huge and unexpected increase in the consultants’ category from 14% in 2000 to 21.7% in 2010. There was a sharp decline in the line managers with HR functions
who responded in 2000 from 10% to only 1.7% in 2010. It can be deduced that more organisations make use of consultants than allowing their line managers to execute HR functions and activities, see Table 1, below.

**Table 1: Profile of respondents by profession in New Zealand in 2000 and 2010**

<table>
<thead>
<tr>
<th>Profession</th>
<th>NZ profile 2000</th>
<th>NZ profile 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR (officer to director)</td>
<td>72.0%</td>
<td>63.4%</td>
</tr>
<tr>
<td>Business (line managers to CEO)</td>
<td>10.0%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Consultants</td>
<td>14.0%</td>
<td>21.7%</td>
</tr>
<tr>
<td>Academic (all tertiary institutions)</td>
<td>4.0%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

In New Zealand most organisations (83%) have fewer than 10 employees. In this study, the participants are from different sized organisations (see Table 2 below); the following groupings were compiled for analysis: small organisations with fewer than 100 employees (0-99); medium 100 to 499 employees, large is 500 or more employees. It should be noted that New Zealand is predominantly a country of small businesses, with 93.3% of enterprises employing 19 or fewer people ("SMEs in NZ: Structure and Dynamics," 2006)

**Table 2: Profile of respondents by organisation size in NZ in 2000 and 2010**

<table>
<thead>
<tr>
<th>Number of employees in organisation</th>
<th>NZ profile 2000</th>
<th>NZ profile 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 10</td>
<td>1.0%</td>
<td>11.7%</td>
</tr>
<tr>
<td>10 – 49</td>
<td>4.0%</td>
<td>8.3%</td>
</tr>
<tr>
<td>50 – 99</td>
<td>9.0%</td>
<td>5.0%</td>
</tr>
<tr>
<td>100 – 499</td>
<td>40.0%</td>
<td>28.3%</td>
</tr>
<tr>
<td>500 or more</td>
<td>46.0%</td>
<td>46.7%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

In Table 2 above, the profile of the respondent’s organisation size employing 500 or more employees for 2000 is almost identical to the 2010 and the group 50 to 99 employees is close with only 4% less in 2010.

Table 3 below compares the six themes used in this paper as it was current in 2010 and predicted for 2020 by the respondents. None of the themes were closely predicted and none in reality are close as per the responses from the respondents. The two categories are combined: “very important” and “critical for success”.

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Table 3: Six closely related themes - two categories: very important to critical for success

<table>
<thead>
<tr>
<th>Closely related Themes</th>
<th>NZ 2010 actual</th>
<th>NZ predict for 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge and use of HRIS systems</td>
<td>16.7%</td>
<td>60.0%</td>
</tr>
<tr>
<td>Succession planning for managers</td>
<td>40%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Assessing employee attitudes</td>
<td>20.0%</td>
<td>48.4%</td>
</tr>
<tr>
<td>Employee training and development</td>
<td>48.3%</td>
<td>76.6%</td>
</tr>
<tr>
<td>Workforce productivity and output</td>
<td>58.3%</td>
<td>80.0%</td>
</tr>
<tr>
<td>Managing of labour costs</td>
<td>50.0%</td>
<td>56.7%</td>
</tr>
</tbody>
</table>

**Knowledge and use of HRIS systems**

Knowledge and use of HRIS systems in the day-to-day activities of organisations seems to get momentum. The actual figure for 2010 was 16.7. Interestingly the figure increased with 43.3% as predicted for the future (being 2020). It confirms the earlier statement that knowledge and use of HRIS systems get momentum and it can be said that employers regard big data more and more valuable for the success of their businesses. For 60.0% of the respondents, it is very important to critical for success in 2020. At the other end of the spectrum, only 16.7% of the respondents regarded it more important in 2010.

**Succession planning for managers**

The respondents were asked to state how important succession planning for managers is now (being 2010) and for the future (being 2020). The actual figure for 2010 was 40% of the respondents that regarded succession planning for managers currently (being 2010) important and a further 26.7% on top of this figure regarded it important and critical for success in 2020 to a total of 66.7%. Organisations need to plan for the future as was pointed out in Figure 1 above because the reality is that strategic planning is done to ensure success in the organisation. No organisation can be successful without succession planning and it is deduced that the fact that NZ has more than 80% small businesses (ie less than 10 employees) the managers or owners could walk around with their “succession plans” in their heads instead of in writing.

**Assessing employee attitudes**

Due to increasing diverse workforces in NZ, it was necessary to test their opinions and it was related to the area of employee attitudes. The actual in 2010 (20.0%) and the predicted percentage for 2020 (48.4%) resulting in a 28.4% increase in importance, according to the respondents. It can be deduced that employers and also HR practitioners are more aware of employee attitudes in the work environment and by using data (obtained from surveys) they get a better understanding of the importance of employee attitudes on organisational performance. Although their prediction for 2020 is less than 50% of the respondents (only 48.4%) that regard this as important or critical for success it is more than double what the actual figure is for 2010. It is really alarming and HR practitioners and managers should take note of this as attitudes are becoming more important for manager when employing people. Employers are of the opinion that they would rather employ a person with the right attitude and train such a person than to employ somebody with the qualifications having a bad attitude (Du Plessis, 2015).
Employee training and development

Respondents were asked to give a response whether their organisation is training their employees meaning in-house or on-the-job training or rather developing their employees’ careers by supporting them with further studies. Data was collected by these organisations’ managers that participated, and was stored in their HRISs.

There was a 10% lower figure given for the actual figure in 2010 as what was predicted (48.5%) for 2010. It seems that organisations would establish themselves as an employer of choice for the future (65%) as they experience the lack of skills attributes and knowledge among their employees if they are not the employer of choice. Employees only have to visit the organisation’s website to determine if their organisation is offering the equivalent as other employers. It is always good if employees compare their rewards with similar organisations. Employees leaving an organisation now place their negative experiences or positive experience on the social media, Facebook and others, and employers / organisations are compared or measured by the public opinion of ex-employees or current employees. It is one thing to recognise the need to be the employer of choice, however it is quite another thing to have the rewards on the table for the employees and what they really experience working for an organisation.

Workforce productivity and output

This question was designed to establish the extent to which organisations, in other words employers and managers could measure their workforce productivity and outputs. The research outcomes for this question confirm that in 2010 only 58.3% of the respondents regarded this as important and the prediction to 2020 was up to 80% which is almost a third more of the respondents that realise they need to use data – information – to determine the success of their organisations. The increasing global nature of competition requires that organisations use all of their available resources to survive and to succeed and therefore organisations need to get information to do their strategic planning (Figure 1 above) and Figure 2 below confirms how big data should be used by employers. The emphasis on human resources and their value add in an organisation is of the utmost importance for success.

Figure 2: Use and flow of big data collected

![Big Data Analysis Information Knowledge Wisdom Wise Decisions]

Source: Developed by the authors

Managing of labour costs

This question was put to the respondents to determine what how managers control and manage their organisation’s labour costs; more specific how HR practitioners in organisations or as consultants manage labour cost with the use of big data. Managers and HR practitioners are involved in the decision making processes and it is interesting to determine to what extent they regard it important in the running of the business. In a study done by the SHL Workers and Good Management (Hopkins, 2012) it was found that 36% of managers regard their participation and involvement in the strategic direction of the organisation as part of their job. The study further revealed that it is not just managing labour costs but include responsibility, more control (empowerment) and more of a say in their work they are doing.

The respondents in our research project responded in 2010 with a mere 50% that acknowledged that they are responsible to use big data to manage labour costs and it only increased to 56.7% predicted for 2020. This is really disappointing that HR managers do not use their HRIS and take full responsibility for managing labour costs in their organisations. It can be deduced that HR practitioners and employers know that it is important for them to manage labour costs but that they don’t acknowledge how important the use of their HRISs is. It seems that they also don’t want accept responsibility for managing of labour costs though all the data is available on their organisation’s HRIS.
RECOMMENDATIONS FOR HR PRACTITIONERS AND EMPLOYERS

Concrete recommendations are proposed in this section, even though a very high level of workforce productivity and output (80.0%) was predicted for 2020 and it is the highest prediction for any of the six themes, for 2020, the main concern is if HR practitioners, managers and employers realise what the value of big data could be and what value the use of HRIS could have in their organisations.

HR practitioners, manager and employers should:

- Use analysts to analyse the big data (see Figure 2) for them so that it becomes useable as knowledge to make wise decisions in future.

- Use their HRIS in their organisations and HR practitioners should ensure that all relevant data such as employee records, costs and so on is entered into their HRIS.

- Ensure that they don’t only measure workforce productivity and outputs but all of the mentioned six themes.

- Get their organisations succession planning in writing and entered into their data bases as 40% or even the predicted 66% importance is not good enough for a successful business.

- Accept the fact that employee attitudes could have a detrimental affect on their business and they should pay serious attention to this. Employee climate surveys should be done regularly and the outcomes should not be ignored.

- Use data to combat labour costs. Utilising of resources goes hand-in-hand with this item and if a proper HRIS is in use it should save the organisation a huge amount of money.

CONCLUSIONS

Findings indicate that the use of HRIS systems in the day-to-day activities of organisations seems to get momentum. For 60.0% of the respondents, it is very important to critical for success in 2020. Organisations need to plan for the future because the reality is that strategic planning is done to ensure success in the organisation. No organisation can be successful without succession planning. It can be deduced that employers and also HR practitioners are more aware of employee attitudes in the work environment and by using data (obtained from surveys) they get a better understanding of the importance of employee attitudes on organisational performance.

It is always good if employees compare their rewards with similar organisations. Employees leaving an organisation now place their negative experiences or positive experience on the social media, Facebook and others, and employers / organisations are compared or measured by the public opinion of ex-employees or current employees. The increasing global nature of competition requires that organisations use all of their available resources to survive and to succeed and therefore organisations need to get information to do their strategic planning. It was confirmed in this research how big data should be used by employers. The emphasis on human resources and their value add in an organisation is of the utmost importance for success. Training and development play a huge role in the success of any organisation and employers / HR practitioners should assist employees to develop their careers. A very useful diagram was developed for use by employers and HR practitioners (Figure1) to show the use of the strategic influence of Big Data.

The six related themes show increases from 2010 in their prediction for 2020 and employers and HR practitioners in New Zealand should be aware of the benefits of big data and HRISs. Recommendations were made in the previous
A new kind of HR practitioner as well as a business manager and employee can be expected in successful organisations in the future adding sustainable value by using big data.

**REFERENCE LIST**


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