CHALLENGES OF INCORPORATING HR ANALYTICS INTO EXISTING HR PRACTICES IN SRI LANKA

P.A.G.M. Amodhi

(179101X)

Degree of Master of Business Administration in Information Technology

Department of Computer Science and Engineering

University of Moratuwa

Sri Lanka

May 2020

CHALLENGES OF INCORPORATING HR ANALYTICS INTO EXISTING HR PRACTICES IN SRI LANKA

P.A.G.M. Amodhi

(179101X)

The dissertation was submitted to the Department of Computer Science and Engineering of the University of Moratuwa in partial fulfilment of the requirement for the Degree of Master of Business Administration in Information Technology.

Department of Computer Science and Engineering

University of Moratuwa

Sri Lanka

May 2020

DECLARATION

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

Also, I hereby grant to University of Moratuwa the non-exclusive right to reproduce and distribute my thesis/dissertation, in whole or in part in print, electronic or other medium. I retain the right to use this content in whole or part in future works (such as articles or books).

| P. A.G.M Amodhi | |
|---|-----------------|
| (Signature of the candidate) | Date: 4/15/2020 |
| | |
| | |
| The above candidate has carried out research for the Masters supervision. | thesis under my |
| | |
| Dr Uthayasanker Thayasivam | Date: 4/15/2020 |
| Signature of the Supervisor | |

COPYRIGHT STATEMENT

I hereby grant the University of Moratuwa the right to archive and to make available my thesis or dissertation in whole or part in the University Libraries in all forms of media, subject to the provisions of the current copyright act of Sri Lanka. I retain all proprietary rights, such as patent rights. I also retain the right to use in future works (such as articles or books) all or part of this thesis or dissertation.

P.A.G.M. Amodhi

ABSTRACT

People analytics, also known as HR analytics or talent analytics, refers to using data-based insights about people to make better management and business decisions. With the growing dissatisfaction of current HR practices, companies are looking for better drive and return in their investment on people. Top companies such as Google, Microsoft, Walmart and HP are using HR analytics to drive business success. While these large organizations are already using HR analytics to make people decisions many other organizations are still struggling to implement HR analytics. To make people analytics a realistic part of HR function, it is important to identify the barriers in adapting this emerging field and introduce better methods and approaches. The lack of evidence on how HR analytics was used to make better business decisions, is one of the main reasons why HR analytics has yet failed to make an impact. Status and

progress of HR analytics in Sri Lanka is barely reported. However, with the rapid technological advancement, Sri Lanka has a potential to HR analytics for further growth. This study used explanatory sequential mixed method design where surveys and in-depth interviews were used to measure the level of maturity of HR analytics in Sri Lanka and to identify and make suggestions to overcome the challenges faced by companies while implementing HR analytics.

The problem statement of this research is:

What are the challenges of incorporating people analytics into existing HR practices and how to overcome these?

Keywords: HR Analytics, People Analytics, Talent Analytics, Workforce Analytics

ACKNOWLEDGEMENT

I would like to express my deep gratitude to all those who helped me to complete this research study on "Challenges of Incorporating HR Analytics into existing HR practices in Sri Lanka"

First and foremost, I wish to thank my research supervisor Dr. Uthayasanker Thayasivam, Senior Lecturer of the Department of Computer Science and Engineering, University of Moratuwa, for the expert guidance and continuous encouragement. It was a great privilege to work and study under his supervision. My

gratitude also extends Dr. Dilum Bandara and Dr Kutila Gunasekera, Senior Lecturers of the Department of Computer Science and Engineering, University of Moratuwa, for the guidance and support throughout the study.

I would like to appreciate Mr. Arjuna Nanayakkara for the time, motivation and valuable insights given. I sincerely thank him for the immense support given by introducing me to number of organizations and distributing my survey.

My heartfelt gratitude goes out to my parents for their love, care and sacrifices made all throughout to support my education. I would also like to thank my love Sarith Senarath for being extremely patient and supportive. Finally, I would like to thank my sisters, friends and everyone who helped me in numerous ways to make this study a success.

TABLE OF CONTENTS

| DECLA | RATIC | N |
|---------|-------|---------------------------------------|
| COPYRI | GHT S | TATEMENTII |
| ABSTRA | ACT | ш |
| ACKNO | WLED | OGEMENT |
| TABLE | OF C | ONTENTSV |
| LIST OF | FIGU | RESVIII |
| LIST OF | TABI | LESIX |
| LIST OF | ABB | REVIATIONSX |
| 1. IN | TROI | DUCTION1 |
| 1.1. | Bac | kground and Motivation1 |
| 1.2. | Res | earch Problem Statement |
| 1.2 | 2.1. | Objectives of the Research |
| 1.2 | 2.2. | Research Significance4 |
| 2. LI | ΓERA | ATURE REVIEW5 |
| 2.1. | HR | Analytics5 |
| 2.1 | .1. | Talent Acquisition5 |
| 2.1 | .2. | Performance Management6 |
| 2.1 | .3. | Training and Development6 |
| 2.2. | Cha | allenges of implementing HR analytics |
| 2.3. | Tale | ent analytics maturity model11 |
| 2.4. | HR | analytics in Sri Lanka |
| 2.5. | Sun | nmary |
| 3. RE | ESEA | RCH METHODOLOGY13 |
| 3.1. | Res | earch Method |
| 3.2. | Var | iables and Relationships |
| 3.2 | 2.1. | Dependent Variable |
| 3.2 | 2.2. | Independent Variable |
| 3.3. | Dat | a Collection |
| 3.3 | 3.1. | Survey |
| 3.3 | 3.2. | Interviews 21 |

| 3.4. Poj | pulation and Sample Selection | 22 |
|-----------|---|----|
| 3.4.1. | Population for the study | 23 |
| 3.4.2. | Sample of the Study | 24 |
| 3.4.3. | Process of Data Collection | 26 |
| 4. DATA | ANALYSIS | 28 |
| 4.1. Su | rvey Results Analysis | 28 |
| 4.1.1. | Industry Type | 29 |
| 4.1.1.1. | Duration of Existence | 30 |
| 4.1.2. | Organizational Size | 30 |
| 4.1.3. | HR Analytics Maturity | 31 |
| 4.1.4. | HR Analytics Maturity Level by Industry | 33 |
| 4.1.5. | Solutions Used for Analytics | 33 |
| 4.1.6. | Future Investment | 34 |
| 4.1.7. | Challenges | 35 |
| 4.2. Into | erview Response Analysis | 36 |
| 4.3. Ch | allenges | 38 |
| 4.3.1. | Data | 38 |
| 4.3.2. | Standardizing systems and processes | 39 |
| 4.3.3. | Skills and Knowledge | 40 |
| 4.3.4. | Funding | 41 |
| 4.3.5. | Leadership | 42 |
| 4.4. Pha | ases of implementation | 43 |
| 4.4.1. | Initiation | 44 |
| 4.4.2. | Assessment and Planning | 46 |
| 4.4.3. | Implementation | 48 |
| 4.4.4. | Maintenance | 50 |
| 4.5. Ch | allenges by phase of implementation | 51 |
| 4.5.1. | Challenges faced during initiation | 51 |
| 4.5.2. | Challenges faced during Assessment and Planning | 52 |
| 4.5.3. | Challenges faced during implementation | 53 |
| 4.5.4. | Challenges faced during maintenance | 54 |
| 4.6 Gu | idelines | 55 |

| | 4.6. | .1.1. Initiation | 55 |
|----|------|--------------------------------|-----|
| | 4.6. | .1.2. Assessment and planning | 56 |
| | 4.6. | .1.3. Implementation | 58 |
| | 4.6. | .1.4. Maintenance | 59 |
| | 4.7. | Validation of the results | 59 |
| | 4.7. | .1. Triangulation | 60 |
| | 4.7. | .2. Respondent Validation | 60 |
| 5. | CO | NCLUSIONS AND FUTURE WORK | 61 |
| | 5.1. | Level of HR Analytics Maturity | 61 |
| | 5.2. | Key Challenges | 62 |
| | 5.3. | Guidelines | 63 |
| | 5.4. | Future work | 63. |
| | 5.5. | Summary | 63 |

LIST OF FIGURES

| Figure 1: Talent Analytics Maturity Model, Bersin (2012) consists of four levels |
|---|
| namely, operational reporting, advanced reporting, advanced analytics and predictive |
| analytics |
| Figure 2: Conceptual Framework. Notice that the Quantifiable Results is a dependent |
| variable of Data Integration |
| Figure 3: Percentage of Establishments by Industry Origin. Notice that Wholesale, |
| retail trade, Manufacturing, Public administration, Defence, Education and Human |
| Health account for the highest percentage of industries |
| Figure 4: Organizations by the use of analytics. Only 22.51% are not using analytics. |
| 29 |
| Figure 5: Use of analytics by industry. Notice that Manufacturing is identified as a |
| influencer for analytics usage |
| Figure 6: Visual representation for the percentage of Organizations by HR Analytics |
| Maturity Level (Bersin, 2012). Notice that the organizations at "Predictive |
| Analytics" level are still very low (6.93%) in Sri Lankan organizations at "Predictive |
| Analytics" level are still very low (6.93%) in Sri Lanka |
| Figure 7: HR Analytics Maturity Level by Industry. Notice that many organizations |
| are in the "Advanced Reporting" Level |
| Figure 8: Percentage of Organizations by the solutions used. Only 17.67% have a |
| dedicated workforce analytics solution |
| Figure 9: Percentage of Organizations by future investment plans. 63.48% of the |
| organizations are planning to increase or maintain the same level of investment. $\dots 35$ |
| Figure 10:Challenges identified in survey results. Lack of analytic acumen and skills |
| among HR professionals is the top challenge |
| Figure 11: Workflow of the Straussian grounded theory method36 |
| Figure 12: HR Analytics Implementation Phases |
| Figure 13: Challenges faced during initiation |
| Figure 14: Challenges faced during Assessment and Planning52 |
| Figure 15 : Challenges faced during implementation |
| Figure 16: Challenges faced during maintenance. Maintaining leadership, funding, |
| systems and processes were identified as key challenges54 |

LIST OF TABLES

| Table 1: Definitions and literature sources. Ten key challenges of implementing | HK |
|---|------|
| analytics were identified | 14 |
| Table 2 : Definitions and challenges identified | 15 |
| Table 3 : Summary of the literature by the challenges | 18 |
| Table 4: Maturity Scores assigned for each Maturity level in the HR Analytics | |
| Maturity Model, Bersin (2013) | 21 |
| Table 5: List of industries selected as categories of population | 22 |
| Table 6: List of industries excluded from the population | 23 |
| Table 7: Percentage of establishments by industry | 23 |
| Table 8: Comparison between the stratified sample and the disproportionate sam | ıple |
| -sizes | 26 |
| Table 9: Percentage of organizations by the HR Analytics Maturity Level based | on |
| the model (Bersin, 2012). Notice that most organizations are at the "Adavanced | |
| Analytics" level. | 31 |
| Table 11 : Data as a Key Challenge | 39 |
| Table 12 : System and Processes as a Key Challenge | 40 |
| Table 13: Knowledge and skill gap as a Key Challenge | 41 |
| Table 14 : Funding as a Key Challenge | 42 |
| Table 15: Initiation as phase of implementation | 45 |
| Table 16: Assessment and Planning as phase of implementation | 47 |
| Table 17: Implementation as phase of implementation. | 48 |
| Table 18: Maintenance as phase of implementation | 50 |

LIST OF ABBREVIATIONS

HR – Human Resource

HRMS - Human Resources Management System

HRIS- Human Resource Information System

IT – Information Technology

BI – Business Intelligence

AI -Artificial Intelligence

1. INTRODUCTION

This research study is conducted to understand the level of HR analytics maturity in Sri Lanka and to Identify the challenges faced by organizations while implementing HR Analytics. Additionally, the study aims to provide recommendations for future HR Analytics implementations. This chapter first explains the background and motivation behind the study, then defines the research problem and the objectives. Finally, the significance of the research study is discussed.

1.1. Background and Motivation

People are perceived to be the most valuable asset to any organization. The ability to attract and then effectively manage and retain the right people is a key factor that drives businesses to success. Decisions related to people are usually taken based on decision maker's intuition or experience. Most of the time there is no systematic or standard way to justify these decisions. However, due to rising turnover and high competition for talent the companies are now seeking better ways to make decisions about their people.

HR analytics also known as people analytics or work force analytics refers to using data to derive insights about people to make management and business decisions. With the popularity of big data, analytics is now been used in every field. Although analytics is already well established in functions such as finance and marketing, it is relatively new to HR function. (Angrave, Charlwood, Kirkpatrick, Lawrence, & Stuart, 2016). HR transformation or moving HR from an administrative function to more strategically focused entity has been the focus of the HR leaders and academics since 1990. HR analytics is considered to enable true HR transformation (Berry, 2016). Model of HR transformation is given in Figure 1.



Figure 1:: Model of HR Transformation. Once HR becomes a Strategy Partner, the next stage seems to be HR Analytics. Source: "HR transformation Turns 21", Robin Lissak, October 2009, Human Executive Online.

In the global context, HR analytics has been a much talked about topic for the past few years and now it is widely accepted that HR analytics will become an established discipline. Google has topped fortune's list of "100 best companies to work for" for seven years in a row until 2017. (Fortune-Fortune 500 Daily and Breaking Business News, 2017)

Google's analytical data driven approach to HR system is the main secret behind this success. Three key HR analytics initiatives by Google are given below.

- Use of a hiring algorithm to predict which candidate has the highest probability of succeeding if hired.
- Use of predictive modelling to identify upcoming people related problems and opportunities
- Internal experiments to identify best approaches of managing people are few of the HR analytics initiatives at Google. (Sullivan D. J., 2013).

It is interesting to note that Salesforce which the latest company to top the fortune list in 2018 has also used HR analytics to improve the candidate experience, smooth out the on boarding process and to help employees' growth in their career. (Johnston, 2017) Further salesforce has also developed a platform for developers and administrators to create the HR AI tools.

Microsoft, Walmart and HP and few of the other top companies who are using HR analytics to drive business success. While many large organizations are already using HR analytics to make people decisions many other organizations are still struggling to implement HR analytics. Recent survey by Deloitte shows that 71% of the companies consider HR analytics as a top priority. However, the report also states that the progress has been slow. The number of companies who use predictive analytics and have a link between HR data and strategic goals have remained the same compared to the previous year. (Laurence, Fineman, & Tsuchida, 2017)

In Sri Lankan context HR analytics is still not in the spotlight. There are no publications, reports, blog spots published regarding the adaptation and maturity of HR analytics in Sri Lanka. Google scholar search for 'HR analytics in Sri Lanka' and its synonyms does not provide any relevant results. HR analytics in the Sri Lankan context. However, Information and communication technology (ICT) is a sector been quick to adopt new information technology and Colombo is ranked among "Top 20 Emerging Cities" by Global Services Magazine. (ICT Services Export Overview, n.d.). HR analytics can be used to further accelerate this growth. It is worth to investigate the current level of HR analytics maturity in Sri Lanka and the challenges organizations face when implementing HR analytics.

1.2. Research Problem Statement

HR analytics has been a popular topic during the past few years and few large companies have successfully implemented HR analytics. On the other hand, many other organizations are still struggling to implement HR analytics and progress has been slow. (Laurence, Fineman, & Tsuchida, 2017) In the academic context, there is a need of work on 'how' to apply HR analytics rather than 'what' needs to be done in the HR analytics field. To make people analytics an integral part of HR function, it is important to identify the barriers in adapting this emerging field and introduce better methods and approaches (Rasmussen & Ulrich, 2015). Status and progress of HR analytics in Sri Lanka is barely reported. However, with the rapid technological advancement, Sri Lanka has a potential to HR analytics for further growth. This study will use the mixed research approach with surveys and in-depth interviews in order to measure the level of HR analytics maturity in Sri Lanka, to identify the key challenges

faced by organizations while implementing HR analytics and make suggestions on 'how' to overcome these challenges for business success.

The problem statement of this research is:

What are the challenges of incorporating HR analytics into existing HR practices in Sri Lanka and how to overcome these?

1.2.1. Objectives of the Research

- To measure the HR Analytics maturity in Sri Lanka
- To find out the key challenges faced by the Sri Lankan companies when implementing HR analytics.
- To make suggestions to overcome the identified challenges and provide recommendations for future research.

1.2.2. Research Significance

Due to lack of academic research regarding HR analytics in Sri Lanka, the level of HR Analytics maturity and challenges of implementing HR Analytics are not clear. Therefore, this study will immensely help the organizations which are planning to implement HR Analytics by providing an overview of HR Analytics Maturity in Sri Lanka, key challenges faced by organizations and guidelines for HR analytics implementation.

2. LITERATURE REVIEW

This chapter provides an overview of the previous research done under HR Analytics. Purpose of the literature review is to get an in depth understanding about the research topic and to understand important theories, models and findings by the previous researchers. Section 2.1 introduces HR analytics and compares similar terms used instead of the term "HR Analytics. Section 2.2 presents challenges of implementing HR analytics Section 2.3 present the talent analytics maturity model which can be used to measure the maturity of HR Analytics in organizations. 2.4 discusses HR analytics in Sri Lankan context. Section 2.5 provides a summary of the literature review.

2.1. HR Analytics

Heuvel and Bondarou defines HR analytics as the systematic identification and quantification of the people drivers of business outcomes, with the purpose to make better decisions. (van den Heuvel & Bondarou, 2017). They also believe that even though the words HR analytics, people analytics and work force analytics are often used interchangeably there can a difference beyond the naming. For example, HR analytics suggest the analytics within the HR function whereas work force analytics is separated from HR function although there can be an association. When implementing HR analytics, the traditional HR processes need to be examined to identify how current processes can be improved by HR analytics.

2.1.1. Talent Acquisition

While recruitment involves the linear process of searching for a specific candidate to fill a specific position that is currently vacant, talent acquisition takes a cyclical approach. It takes a strategic approach of attracting, developing and nurturing people to meet business goals and also creating a talent pipeline to meet future talent needs. (Friedman, n.d.) As mentioned in section 1,1 Google is using hiring algorithms to assist talent acquisition process. HR analytics can be used to predict the employees who are likely to be high performers. HR analytics is used to identify the right time to recruit and to predict the possible length of employment and performance (Varghese,

2017). Furthermore, analytics can also be used to identify and predict the future talent demands of the company.

2.1.2. Performance Management

Performance management is ensuring that the performance of the employees are consistent to achieve business goals (Aguinis, 2013). HR analytics can be used to remove the biasedness and subjectivity in usual performance management by introducing a more transparent and data driven approach. Analytics help to identify the key talents more objectively. Also, the factors that lead to good performance can also be analyzed during this stage. These identified factors can then be sent back to talent acquisition team to be used when predicting the candidates with highest potential. (Varghese, 2017)

2.1.3. Training and Development

Recognizing the training needs based on the key capabilities required from employees to achieve business goals and testing the effectiveness of the training can be done by using HR analytics. Using a learning management system, the training and development can be tracked by the management and also the employees will have better understanding of their skill gaps and strengths. Analyzing training records and performance data will also help to identify employee issues as well. For example, an employee who is not participating in training programs actively may not be well satisfied with the job or company. Collecting and analyzing the customer insights to identify employee development areas is another important usage of analytics and effective way of improving customer satisfaction. (7 ways to use big data in training and development, 2017.

Traditional HR practice uses the reactive approach for problems. Data mining techniques such as clustering can be used to forecast the turnover. Identifying the key factors, work conditions that impact turnover will help managers to act in advance and change the working environment to lower the turnover. Based on historical data statistical models can be developed and used to predict the probability of attrite for each employee. Google is successfully using a retention algorithm to detect employees

with high probability of leaving which enable managers to act in advance. (Varghese, 2017)

2.2. Challenges of implementing HR analytics

Angrave (Angrave, Charlwood, Kirkpatrick, Lawrence, & Stuart, 2016) explains that the lack of evidence on how HR analytics was used to make better business decisions, is one of the main drawbacks which holds HR Analytics implementation. There is a need for research papers that focus on 'how' to apply HR analytics rather than 'what' needs to be done in the HR analytics field. The study observes that the study of literature in HR analytics field results in two key observations. Firstly, there exists a growing literature which highlights the fact that HR analytics will revolutionize the HR function. However, this category of literature is written by consultants or authors with commercial interest whose aim is to sell their products and services. (Fink, 2010), (HR joins the analytics revolution. Harvard Business Review Reports, 2014), (Why people management is replacing talent management, 2015) are few examples of literature that falls into this category. Secondly, it is surprising to observe that although it is widely discussed that HR function should incorporate HR analytics into practice, research papers that present actual applications of HR analytics are limited to one or two papers such as (Rasmussen & Ulrich, 2015), (Casio & Boudreau, 2011) and (Sparrow, Hird, & Cooper, 2015)

Research study by Rasmussen & Ulrich cite two case studies of applying HR analytics in the business context. The first case study is based on a company called Maersk Group which observed a significant difference in performance between drilling rig that operated in the same environment. It is explained how business analytics was used to find out that even though operational performance (drilling performance in this case) is the main factor that decides customer satisfaction other factors namely, leadership quality, crew competence, safety performance, environmental performance also matter in company's success. As the quality of leadership improved the turnover rate decreased resulting with a high competent team. High competent team returns safer performance, lower number of spills and maintenance hours which links to higher customer satisfaction. The second case study shows how the challenge of filling lead specialist positions in the same company was solved by identifying graduate program

for trainee specialists as a potential and deciding to double the graduate program intake as a growth plan. (Rasmussen & Ulrich, 2015) Even though this research paper presents case studies limited one company, it adds value to literature by adding evidence on how analytics can be used make critical business decisions. However, this paper does not discuss in detail how the key factors affecting customer satisfaction were identified, what are the challenges faced when implementing HR analytics etc. Some ideas on why HR Analytics is failing to make an impact are discussed but practical examples of how these challenges can be overcome are not given.

In the study (Sparrow, Hird, & Cooper, 2015), discusses how analytical tools were used by Tesco to identify the its customers and workforce and also how Mc Donalds was able to identified the factors that optimum restaurant performance depends on as staff demographics, management behaviors and employee attitudes.

Research by Angrave provides an analysis of reasons as to why HR function is falling behind in HR Analytics adaptation. (Angrave, Charlwood, Kirkpatrick, Lawrence, & Stuart, 2016). First the study identifies the problems of software developed for HR analytics. In order to get the maximum value, HR data should be used to justify the strategic value of people to an organization. However, the HRIS software available in the market do not have the capabilities perform such advanced statistical analysis. The paper explains that organizations heavily invest on software that has been developed for commercial purposes which fail to add value to real organizational problems. (Sturdy, 2011). These shortcomings of the software are not highlighted, and the lack of cultural change is often used as a reason for the failure. This is also supported by a another literature source stating that the software available today are addressing the HR problems of the previous decade (Why people management is replacing talent management, 2015)

Also, the study stresses out the importance of HR professionals to work on their skills and knowledge to better understand the HR analytics field. This is also stated by (Rasmussen & Ulrich, 2015) as a suggestion to involve HR analytics as an active part of management decision making. The study states that only 40% of the HR professional understands or can be taught analytics. Even though the basic evidence to

this fact is not mentioned it is important to verify this fact and focus on identifying the cross section of HR professional that can be trained to have an analytical mindset.

Rasmussen & Ulrich also states that teaching HR to statisticians or analysts is more efficient than teaching analytics to HR professionals. Again, no evidence is provided to justify the statement. However, it is worth to investigate which category of people are better suited to develop an analytical mindset.

In 2014, an online survey was conducted by Harvard Business Review Analytic Services to identify the trends in workforce analytics. 230 self-selected respondents participated where two third of the respondents were managers/executives while others were HR professionals. The findings of the survey have been discussed and compared with six industry experts. 54% of the respondents find inaccurate, inconsistent or hardto-access data requiring too much manual manipulation as one of the biggest obstacles to achieve better use of data, metrics and analysis. Findings suggest that many organizations plan to increase their dependence on workforce analytics in the next two years. Many companies have been focusing on using workforce analytics for cost reduction however the study suggest that goal to increase revenue and profit needs priority. Also, collaboration between HR team and business stakeholders is essential in achieving organizational goals. (HR joins the analytics revolution. Harvard Business Review Reports, 2014). Sponsored by an analytics solutions provider this paper can be biased towards positive impact of HR analytics. What is interesting to notice is that even though this paper predicts in 2014 that in two years companies will be more reliant on HR analytics, by the research papers done two years after in 2016 still claims that the companies are struggling to implement HR analytics. The research papers discussed above (Angrave, Charlwood, Kirkpatrick, Lawrence, & Stuart, 2016) and (Angrave, Charlwood, Kirkpatrick, Lawrence, & Stuart, 2016) are two such examples.

A study by Heuvel and Bondarou (2017) investigates how HR analytics is likely to be in 2025 with regard to applications, value, structure and system support. Findings indicate that a separate HR analytics function will not exist by 2025. Instead a central analytics team which focus on identifying opportunities and improving business. Therefore, it is suggested that it will be more cost effective and efficient to establish a

central analytics team directly rather than waiting for the HR analytics team to evolve into a central analytics team with time. It is necessary to integrate people data with data from other functional areas such as finance, sales, marketing and social media. The study also discusses the importance of technology in the HR Analytics implementation. This includes the time-consuming activities of integrating multiple databases, automating the data extraction, transformation and loading process. Limitations of this study are that the sample consists only the active HR practitioners which may cause the study to be biased. Also, this study has included companies from different industries whereas industry specific studies may provide better findings. The degree of support received from business for HR analytics depends on the maturity of the analytics culture in the company and analytical capabilities company already possess. (van den Heuvel & Bondarou, The rise (and fall?) of HR analytics, 2017)

A study by (Qadir & Jolly, 2019) explores the gaps in HR Analytics implementation in Delhi India by conducting interviews with professionals from 8 companies. The lack of skills among HR Professionals, lack of evidence to justify the need of analytics and data quality issues as some of gaps identified. The study concludes that the Indian organizations are still not ready for HR Analytics adaptation.

(Gurusinghe, Arachchige, & Dayarathna, 2019) explores the research gaps of existing literature of HR Analytics in Sri Lanka. The study reviews scholarly articles from 2004 to 2018 to identify five main gaps in research. The identified gaps are conceptual confusion, limited theoretical perspective, lack of empirical evidence, legal and ethical limitations and human factors. However, the study does not discuss the level of adaptation or implementation challenges of HR Analytics in Sri Lanka.

2.3. Talent analytics maturity model

Bersin (2015) introduced a talent analytics maturity model to access the organizations in terms of their talent analytics maturity (Figure 2)



Figure 2: Talent Analytics Maturity Model, Bersin (2012) consists of four levels namely, operational reporting, advanced reporting, advanced analytics and predictive analytics

- Operational Reporting: When the organizations are collecting data only for
 the basic measures such as headcount and using data only reactively with no
 involvement in decision making then the organization is assessed to be at level
 1, "Operational Reporting"
- Advanced Reporting: When the organizations are collecting data proactively for decision making ideally through customized dashboards then the organization is assessed to be at level 2, "Advanced Reporting"
- Advanced Analytics: When the organizations have a proper analytics system in place while statistical analysis is used to solve business problems, then the organization is assessed to be at level 3, "Advance Analytics"
- **Predictive Analytics:** When the organizations have a data governance model and predictive models with high involvement in business planning and decision making then the organization is assessed to be at level 3, "Predictive Analytics"

2.4. HR analytics in Sri Lanka.

The current state and maturity of HR analytics in Sri Lanka is barely reported and the academic research on the subject is non-existent. Per recent newspaper article

currently there are many experiments hosted in the field of analytics and there are significant signs about uptake of analytics. There seems to be a lack of awareness among Sri Lankan organizations about the value of data available. Improved effort in analyzing data would generate wealth of information about employee performance, operational efficiency, product popularity, and customer preferences" (Fuard, 2017).

In the middle of December 2017, Telecommunication & Digital Infrastructure Ministry initiated the process of developing a digital economy strategy for Sri Lanka with the support of McKinsey and company. The proposed Digital Economy for Sri Lanka is predicted to increase the GDP by 1-3% in 2019. (Sri Lanka's Digital Economy Strategy, 2018). This initiative if successful, indicates a high potential for HR analytics field.

2.5. Summary

In the global context it is widely accepted that analytics is the future of HR and companies are already investing in HR analytics. However, most of the companies are still struggling to successfully implement HR analytics. Study of literature shows that there are very few papers that discuss the actual application of HR analytics therefore further research on this area is encouraged. In Sri Lanka, the status and direction of HR analytics is not clear. However, with the current trends and advancement of technology in Sri Lanka it can be assumed that HR analytics has a high potential. Therefore, it is worth to investigate the current maturity of HR analytics in Sri Lanka and to identify what are the challenges companies are currently facing while implementing HR analytics.

3. RESEARCH METHODOLOGY

A detailed overview of the research methodology used for this study is provided in this chapter. Section 3.1 explains the mixed methods research method and the reasons for choosing this approach. Section 3.2 identifies the variables and relationships from literature and builds the conceptual framework. Section 3.3 explains the data collection methods used for the survey and interviews. Finally, population and sample selection are discussed in section 3.4.

3.1. Research Method

Mixed methods approach was used to conduct the research study. Mixed methods research involves both qualitative and quantitative data. Each of the research methods; quantitative and qualitative, has their own inherent drawbacks and weaknesses. By using the mixed methods, researcher is able to conduct an extensive research study more strengthened with evidence. HR analytics in Sri Lanka is a broad research topic that has not being addresses before and the mixed methods approach allows collection of diverse types of data which helps to get a complete understanding of the research problem. The first and second objectives of the research; Measuring the level of HR analytics maturity in Sri Lanka and identifying the main challenges of implementing HR analytics requires to gather views from participants in order to generalize results to the population. To achieve these two objectives the quantitative approach is most suited however the third objective which is to make recommendations to overcome the identified challenges, requires collecting stories and ideas from participant for which the qualitative approach is more suited. Therefore, the mixed methods approach is ideal for the research problem of this study.

Explanatory sequential mixed method design was used, which was conducted in two phases: In the first, as the first phase of the study, quantitative survey data was collected from several organizations in Sri Lanka to measure the level of HR analytics maturity in Sri Lanka and to identify the challenges faced while implementing HR analytics into traditional HR practices.

The second, qualitative phase was conducted in the form of in-depth interviews to explain the quantitative results. In this phase, the semi structured interviews were conducted with industry experts to discuss the survey results in detail.

3.2. Variables and Relationships

3.2.1. Dependent Variable

HR analytics implementation success is the dependent variable and the primary focus of this research study. The "Table 1" provides the definitions and the literature sources related to this variable.

Table 1: Definitions and literature sources. Ten key challenges of implementing HR analytics were identified. Namely, Skills and knowledge, Data pre-processing, Financial factors, Management Support, Behavioural Factors, Cultural Factors, IT Support, Compliance, Time and Communication.

| Variable | Definition | Literature Sources |
|----------------|------------------------|--------------------------------------|
| Challenges of | Challenges faced by | HR joins the analytics revolution. |
| HR Analytics | organizations while | Harvard Business Review Reports |
| Implementation | trying to add value to | (2014), Rasmussen, T., & Ulrich, D. |
| | business by | (2015), van den Heuvel, S., & |
| | implementing HR | Bondarouk, T. (2017), Mondore, S., |
| | analytics into | Douthitt, S., & Carson, M. (2011), |
| | traditional HR | Varghese, D. M. (2017), Angrave, |
| | practices. | Charlwood, Kirkpatrick, Lawrence, & |
| | | Stuart (2016), Sparrow et al (2015), |
| | | Chahtalkhi, N. (2016), Lismonta, |
| | | Vanthienen, Baesens, & Lemahieu |
| | | (2017), Bersin(2015), Company |
| | | (2016), Dewri (2015), Blogs (2018), |
| | | Sullivan (2017), Lee (2015) |

3.2.2. Independent Variable

Summary of the literature by the challenges identified is given in "Table 2". Conceptual framework built using the identified challenges are displayed in "Figure 2". Due to limited number of academic researches related to HR Analytics only 10 factors were identified. It is worth to note that "Skills and Knowledge" and "Data quality issues" had higher frequencies of mention. "Time" and "Communication" were mentioned few times however these factors were also included since they were mentioned in recent articles. Summary of the literature by the challenges identified is given in "Table 2". Conceptual framework built using the identified challenges are displayed in "Figure 3"

Table 2: Definitions and challenges identified

| Variable | Definition | Related Challenges |
|---------------|---|---|
| Skills and | Information related to the | -Lack of analytical skills and |
| Knowledge | performance of the employee. | acumen in HR professionals. |
| | Competence of the employee to perform a task. | -HR department lacks understanding about organization's business model |
| Data | Processing and transforming | and strategies. - Inaccurate, inconsistent, or |
| Preprocessing | the raw data into a format that will be more easily and effectively processed for the | hard-to-access data requiring too much manual manipulation. |
| | purpose of the user. (Rouse, n.d.) | -Integrating data from different sources. |
| | | -Inaccurate, inconsistent, or hard-to-access data requiring too much manual manipulation. |

| Financial | Information that impact a | -Lack of evidence to justify the |
|------------|----------------------------------|----------------------------------|
| Factors | business or an investment's | use of analytics. |
| | value. | |
| | | -Weak business case due to lack |
| | | of quantifiable returns. |
| Management | The support given by | -Lack of awareness and support |
| Support | management for a project by | by C-suite executives. |
| | providing necessary resources | |
| | and leadership | |
| | | |
| Compliance | Ensuring the organization | -Laws on data storage |
| | adhere to the laws, regulation, | |
| | best practices and ethics. | -Data privacy |
| | | |
| | | -Permission Issues: Limited |
| | | availability due to security |
| | | reasons. |
| | | |
| Behavioral | Factors that stem from human | -Confirmation Bias: The |
| Factors | reaction or non-reaction to a | tendency to favor the |
| | situation or an environment. | information that confirms your |
| | This factor varies according to | preferred decision or previous |
| | personal traits, preferences, | beliefs. |
| | beliefs etc. | |
| | | -Casual benchmarking: |
| | | Strategies and practices that |
| | | worked for one company may |
| | | not work for another company. |
| Cultural | Organizational culture is | Employee resistance to change. |
| Factors | defined as the inherent beliefs, | |
| | assumptions, values and ways | |

| | of interacting that contribute | • The mindset that HR is |
|---------------|-----------------------------------|----------------------------------|
| | to the unique social and | expected to perform as a |
| | psychological environment of | supporting function only. |
| | an organization. | |
| | (What is organizational | Fear that data might reduce the |
| | Culture?, n.d.) | human essence in problem |
| | | solving |
| IT Support | Technical guidance and | -Insufficient IT resources: The |
| | support needed from IT | implementation of analytics in |
| | experts. | HR is an IT-intensive process. |
| Communication | Information sharing between | -Consistency in spreading |
| | people within and outside an | awareness. |
| | organization. | -Effective communication down |
| | | the hierarchy. |
| | | -Unclarity on roles and |
| | | responsibilities. |
| | | -Lack of communication |
| | | between HR, IT and the |
| | | business. |
| Time | In organizational context the | - Time consuming activities such |
| | time allocated for a certain task | as planning implementation and |
| | will be decided according to | setting up the required |
| | the importance and urgency. | infrastructure. |

 $Table\ 3: Summary\ of\ the\ literature\ by\ the\ challenges.\ The\ cross\ mark\ indicates\ the\ challenges\ which\ are\ mentioned\ in\ the\ research\ paper.$

| Literature Sources\Challenges Sources\Challenges Sources\Challenges Literature Sources\Challenges Literature Sources\Challenges Literature Sources\Challenges Literature Literat | | | 1 | | | | | | | | |
|--|---|----------------------|------|---------|--------------------|------------------|-------------|---------|-------------------|---------------|------|
| revolution. Harvard Business Review Reports (2014) Rasmussen, T., & Ulrich, D. (2015) van den Heuvel, S., & Bondarouk, T. (2017) Mondore, S., Douthitt, S., & Carson, M. (2011) Varghese, D. M. (2017) Angrave, Charlwood, Kirkpatrick, Lawrence, & Stuart (2016) Sparrow et al (2015) Chahtalkhi, N. (2016) Lismonta, Vanthienen, Baesens, & Lemahieu (2017) Bersin (2015) Company (2016) X | | Skills and Knowledge | Data | Finance | Management Support | Legal Compliance | Behavioural | Culture | Technical Support | Communication | Time |
| revolution. Harvard Business Review Reports (2014) Rasmussen, T., & Ulrich, D. (2015) van den Heuvel, S., & Bondarouk, T. (2017) Mondore, S., Douthitt, S., & Carson, M. (2011) Varghese, D. M. (2017) Angrave, Charlwood, Kirkpatrick, Lawrence, & Stuart (2016) Sparrow et al (2015) Chahtalkhi, N. (2016) Lismonta, Vanthienen, Baesens, & Lemahieu (2017) Bersin (2015) Company (2016) X | HR joins the analytics | | | | | | | | | | |
| Rasmussen, T., & Ulrich, D. (2015) | | | | | | | | | | | |
| Rasmussen, T., & Ulrich, D. (2015) x | Business Review Reports | X | X | X | | | | X | | | |
| D. (2015) | (2014) | | | | X | | | | | | |
| D. (2015) x | | v | | v | | | | | | | |
| Sondarouk, T. (2017) | | Λ | | Λ | X | | | | | | |
| Mondore, S., Douthitt, S., & Carson, M. (2011) | 1 | | x | | | X | | x | X | | |
| & Carson, M. (2011) X | · | | | | X | | | | | | |
| Varghese, D. M. (2017) x | | | X | X | | | | | | | |
| Angrave, Charlwood, Kirkpatrick, Lawrence, & Stuart (2016) Sparrow et al (2015) | , , , , , , , , , , , , , , , , , , , | | | | | | | | | | |
| Kirkpatrick, Lawrence, & Stuart (2016) x | | X | | X | | | | | | | |
| Chahtalkhi, N. (2016) x x x x Lismonta, Vanthienen, Baesens, & Lemahieu (2017) x x x x Bersin (2015) x x x x x x Company (2016) x x x x x x x Dewri (2015) x x x x x x x x Sullivan (2017) x x x x x x x x Challenges, Benefits and | Kirkpatrick, Lawrence, | X | X | | | X | | X | | | |
| Chahtalkhi, N. (2016) x x x x Lismonta, Vanthienen, Baesens, & Lemahieu (2017) x x x x Bersin (2015) x x x x x x Company (2016) x x x x x x x Dewri (2015) x x x x x x x x Sullivan (2017) x x x x x x x x Challenges, Benefits and | Sparrow et al (2015) | X | | | X | | X | X | | X | |
| Lismonta, Vanthienen, Baesens, & Lemahieu (2017) x | Chahtalkhi, N. (2016) | | X | | х | X | | | | X | |
| Baesens, & Lemahieu x | | | | | | | | | | | |
| Bersin (2015) x < | l | X | X | | | | | | | | |
| Company (2016) x | (2017) | | | | X | | | | | | |
| Dewri (2015) | Bersin (2015) | X | X | | | X | | X | | | |
| Blogs (2018) x x x x x x x Sullivan (2017) x x x x x x Lee (2015) x x x x x Challenges, Benefits and x x x x | Company (2016) | X | X | X | X | | | | X | X | |
| Sullivan (2017) x x x Lee (2015) x x x Challenges, Benefits and x x x | Dewri (2015) | X | X | | | X | X | | | | |
| Lee (2015) x x x x Challenges, Benefits and | Blogs (2018) | X | X | X | | X | X | | X | | X |
| Challenges, Benefits and | Sullivan (2017) | X | | | | | X | | | | |
| Challenges, Benefits and | Lee (2015) | X | X | | | | X | | X | | |
| | ` , | | | | | | | | | | |
| Implementing People Analytics (2016) X X X X X X X X X X X X X X X X X X X | Best Practices for Implementing People | X | X | X | | | X | | X | | X |
| Total 13 12 7 7 6 6 5 5 3 2 | Total | 13 | 12 | 7 | 7 | 6 | 6 | 5 | 5 | 3 | 2 |

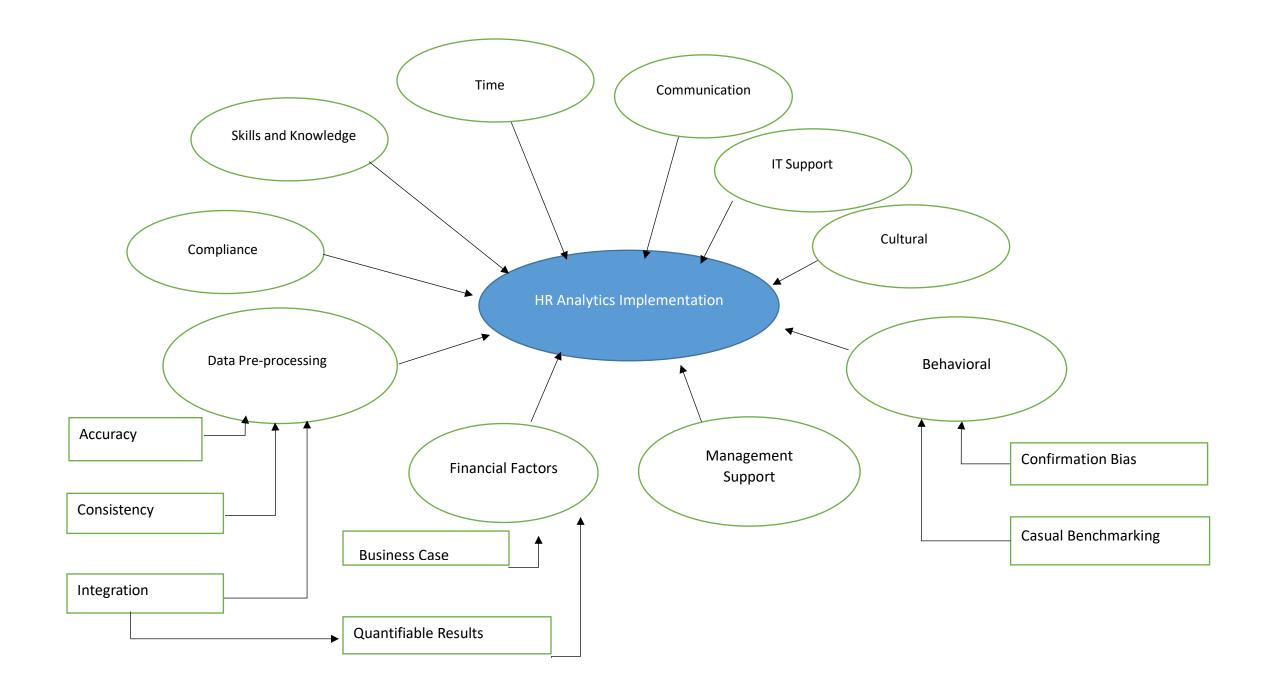


Figure 3: Conceptual Framework. Notice that the Quantifiable Results is a dependent variable of Data Integration

3.3. Data Collection

The target population of this research study is the organizations in Sri Lanka. Since this is the first time a research related to HR analytics is being carried out in Sri Lanka, data collection methods used in other countries for the same purpose was studied before deciding on the data collection method. Harvard Business Review Analytic Services has conducted a survey on workforce analytics trends, involving 230 self-selected respondents and the survey results have been discussed with six experts. (HR joins the analytics revolution. Harvard Business Review Reports, 2014). Masenyane Molefe has used the qualitative, exploratory approach to measure the usage of HR analytics in South African organizations. The author argues that qualitative approach is most suitable when the topic is new. (Molefe, 2013) further cites, (Myers, 2008), to explain how the meaning is lost when the qualitative data is converted to numbers.

The mixed methods research was used for this study as it involves both quantitative and qualitative approach and address the concerns mentioned above.

Data collection was done in two phases, in the first phase, to access the HR Analytics maturity and to understand the main challenges faced by organizations in Sri Lanka, a survey questionnaire was used. Results were analyzed to identify the industry origins that have higher levels of HR Analytics maturity. In the second phase qualitative data was collected through interviews with industry experts from identified industries.

3.3.1. Survey

The survey was consisted of 10 questions, out of which 9 were closed ended questions and an open-ended question was used to identify any challenges that researcher has missed. Questions 1-3 were used to collect the demographic details of the organization while question 5-8 were adopted from the research paper (Molefe, 2013) to identify the level of HR analytics maturity based on the maturity model (Bersin, 2012) discussed in Chapter two. Each of the questions 5-8 was given a weight and the responses given a score. Question 5 inquires directly about the analytics usage of the company while question 6 inquires about the application of analytics by HR division. These two questions were therefore given higher weights compared to other questions.

Overall maturity score was calculated by multiplying the weights by the scores. Based on the overall maturity score the organization's HR Analytics maturity level was identified as per "Table 4". Further details regarding this calculation are given in the Appendix C.

Table 4: Maturity Scores assigned for each Maturity level in the HR Analytics Maturity Model, Bersin (2013). Notice that score zero is also introduced to classify the organizations with no use of analytics.

| Maturity Score | Maturity Level |
|----------------|------------------------|
| 0 | No use of HR Analytics |
| 1-16 | Operational reporting |
| 32-17 | Advanced Reporting |
| 33-49 | Advanced Analytics |
| 50 -65 | Predictive Analytics |

The question 9 aims to identify the main challenges faced by the organization. All ten factors mentioned in the table are given in a multiple-choice selection list where the respondents were asked to pick the main challenges the organization faces while implementing HR analytics.

Finally, the 10th question is an optional open-ended question requesting the user to specify any other challenges or add any relevant remarks. Questionnaire of the survey is attached in Appendix A.

3.3.2. Interviews

A basic interview guide was used to ensure the objectives of the in the interview are achieved however the questions were changed according to the context. Interview guide was designed to cover five areas related to HR Analytics implementation.

- 1. Background
- 2. Challenges
- 3. Level of Application
- 4. Success and Future plan
- 5. Suggestions and Recommendations

3.4. Population and Sample Selection

The industry origins listed in "Table 5" were selected as categories of the population. These industries together account for 72.9 percent of the Gross Domestic Product (GDP) of Sri Lanka. Due do limitations of the study and lack of data available, the industry origins given in "Table 6" were not considered for the study. These industries together account for 17.4 percent of the Gross Domestic Product (GDP) of Sri Lanka. (Bank, 2016)

Table 5: List of industries selected as categories of population. These industries together account for 72.9% of the GDP of Sri Lanka.

| Industry Origin | Contribution to GDP |
|---|---------------------|
| Wholesale and retail trade, transportation and storage, and accommodation and food service activities | 22.9 |
| Manufacturing | 15.4 |
| Public administration, Defense, Education and Human Health | 8.7 |
| Professional and other personal services | 11.4 |
| Information and Communication | 0.6 |
| Electricity, Gas, Water and Sewerage | 1.1 |
| Financial, Insurance and Reinsurance, Real Estate including | |
| ownership of dwelling | 12.8 |
| Total | 72.9 |

Table 6: List of industries excluded from the population. These industries together account for 17.4% of the GDP of Sri Lanka.

| Industry Origin | Contribution to GDP |
|---|---------------------|
| Agriculture, Forestry and Fishing | 7.1 |
| Sewerage, waste treatment and disposal activities | 7.6 |
| Mining and Quarrying | 2.4 |
| Construction | 0.3 |
| Total | 17.4 |

3.4.1. Population for the study

Since all the industry origins selected in section 3.4, belong to Industries, Trade and Service Sectors, Annual Surveys of Industries and trade and services was referred to obtain the number of establishments for each industry origin. A summary of findings is listed in "Table 7". Population size is the total number of establishments which is 62,593.), (Statistics, Annual Survey of Trade and Services, 2016) (Statistics, Annual Survey of Industries, 2016)

Table 7: Percentage of establishments by industry. Source: Statistics, Annual Survey of Trade and Services and Statistics, Annual Survey of Trade and Services (2016)

| Category | No of Establishments | Percentage of Number of Establishments |
|-------------------------------|----------------------|--|
| Accommodation, food and | | |
| beverage services | 5,560 | 8.88% |
| Electricity, Gas, Water and | | |
| Sewerage | 394 | 0.63% |
| Financial, Insurance and | | |
| Reinsurance | 252 | 0.40% |
| Information and Communication | 648 | 1.04% |
| Manufacturing | 16,939 | 27.06% |

| Professional and other personal services | 1,046 | 1.67% |
|---|--------|---------|
| Public administration, Defence, Education and Human Health | 14149 | 22.60% |
| Real Estate including ownership of dwelling | 121 | 0.19% |
| Transportation, storage, postal and courier activities | 2,236 | 3.57% |
| Wholesale retail trade | 21248 | 33.95% |
| Total | 62,593 | 100.00% |

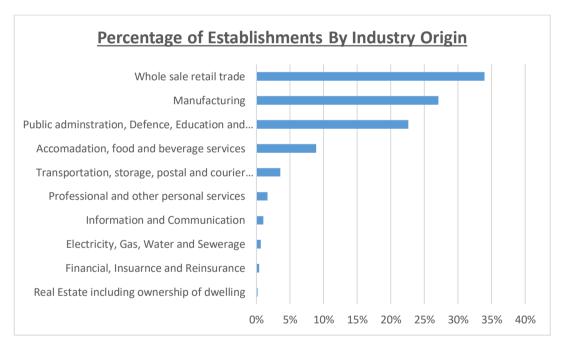


Figure 4: Percentage of Establishments by Industry Origin. Notice that Wholesale, retail trade, Manufacturing, Public administration, Defence, Education and Human Health account for the highest percentage of industries.

3.4.2. Sample of the Study

Disproportionate stratified sampling was used to select the sample of the study. Under stratified sampling, first the target population is divided into mutually exclusive

homogeneous segments called strata. Next a simple random sample is selected from each stratum and finally all the samples are combined into a single sample. For this study, each industry origin mentioned in "Table 7" was taken as a stratum.

The sample size was calculated using the formula given by (Levine, Stephan, Krehbiel, & Berenson, 2008).

Equation 1: Sample size calculation formula

$$n = \frac{n_0 N}{n_0 + (N-1)}$$

Where,

$$n_0 = \frac{Z^2 p(1-p)}{e^2}$$

n- Required sample size

N- Population size (62593)

p- maximum variability (0.5)

e- sampling error (0.05)

Z– The abscissa of the normal curve that cuts off an area α at the tails (1 - α equals the desired confidence level (1.96 for 95% confidence interval)

When the parameters of the present study applied to the above formula at the confidence interval of .05 and confidence level of 95%.

$$n_0 \!=\! ((1.96)^2 *0.5*0.5) \! / \, (0.05)^2 \! = 384.16$$

$$n = (384.16 *\ 62\ 593)\ /\ (384.16 + 62592) = 381.8227 \approx \underline{382}$$

If the sample size is very small for a certain stratum, a detailed analysis is not possible. Therefore, Disproportionate stratified sampling technique was used. Disproportionate stratified sampling is a sub type of stratified sampling where number of elements sampled from each stratum is not proportional to their representation in the original

population. This gives the researcher the ability to oversample the small or rare strata Stratified sampling draws samples that are more representative of the population and takes into account, the researcher's knowledge about the population.

Table 8: Comparison between the stratified sample and the disproportionate sample -sizes. Notice that the disproportionate sample size has changed according to the researcher's judgment.

| Category | Stratified | Disproportionate Sample |
|-------------------------------------|-------------|-------------------------|
| | Sample size | Size |
| Accommodation, food and beverage | 34 | 20 |
| services | | |
| Electricity, Gas, Water and | 2 | 20 |
| Sewerage | | |
| Financial, Insurance and | 2 | 50 |
| Reinsurance | | |
| Information and Communication | 4 | 50 |
| Manufacturing | 103 | 100 |
| Professional and other personal | 6 | 20 |
| services | | |
| Public administration, Defense, | 86 | 70 |
| Education and Human Health | | |
| Real Estate including ownership of | 1 | 10 |
| dwelling | | |
| Transportation, storage, postal and | 14 | 20 |
| courier activities | | |
| Wholesale retail trade | 130 | 22 |

3.4.3. Process of Data Collection

First the pilot study was conducted by sending the questionnaire to few HR professionals and using their feedback to enhance the clarity of the questionnaire.

Feedback obtained to simplify the questions and shorten the questionnaire by using "checkbox grids". The survey questionnaire was shared with organizations of abovementioned industry sectors via electronic mail and social media HR forums were used to distribute the survey questionnaire.

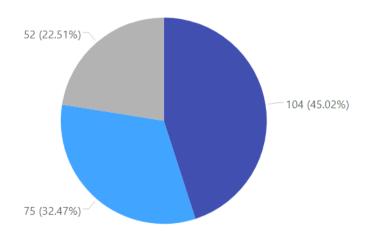
4. DATA ANALYSIS

This data analysis of the research study is demonstrated in this chapter. As mentioned in the previous chapters the data collection was done under two phases. First a survey was conducted, and the analyzed results were used plan the interviews. Section 4.1 demonstrates the results of the survey while sections 4.2- 4.6 explains how the interview responses were analyzed by using axial and selective coding concepts in grounded theory.

4.1. Survey Results Analysis

Survey results indicate that there is a moderate level of awareness about HR Analytics among organizations in Sri Lanka. Most of the organizations claim use analytics in their decision-making process at least in few areas. 77.49 % of the organizations indicated that they have some level analytics involved in their decision-making process. The responses were further analyzed to explore the any patterns related to the sector, industry, years of existence and size of the organization. To avoid confusion and misinterpretations, the both "Yes, sometimes" and "Yes, most of the time" responses were coded as "Yes" to indicate that some level of HR Analytics exists in the company.





●Yes, sometimes ●Yes, most of the time ●No, we mainly rely on our intuition to make decisions about our employees

Figure 5: Organizations by the use of analytics. Only 22.51% are not using analytics.

4.1.1. Industry Type

Industry wise analysis of the responses highlights the "Manufacturing" industry as a strong influencer in the Sri Lankan HR Analytics field while "Real Estate including ownership of Dwelling" seems be lagging behind in HR Analytics usage.

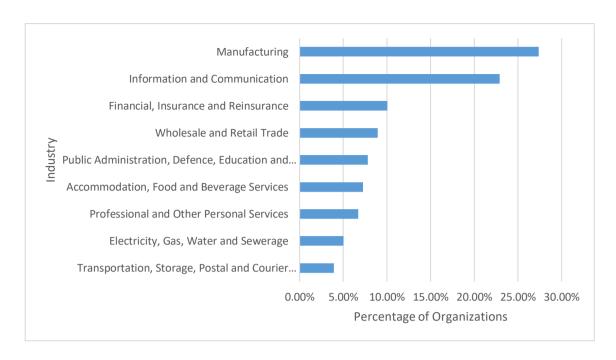


Figure 6: Use of analytics by industry. Notice that Manufacturing is identified as a influencer for analytics usage.

Additionally, following industries seem to have a significant use of HR Analytics.

- Financial, Insurance and Reinsurance
- Wholesale and Retail Trade
- Information and Communication

4.1.1.1. **Duration of Existence**

No influences were identified for the duration of existence however it was observed that the companies with duration of less than 5 years are more likely to have no use of HR Analytics.

4.1.2. Organizational Size

Survey results indicate that organizations with more than 250 employees have a higher usage of HR Analytics whereas the organizations with less than 10 employees are likely to have no analytics usage.

4.1.3. HR Analytics Maturity

As explained in chapter 3, responses for the questions 5-8 were used to calculate the maturity score for the organizations. Based on the score achieved the organizations were assigned to maturity level as per the "Talent Analytics Maturity Model" (Bersin, 2012). Results indicated that 48.92% of the organizations are in the "Advanced analytics" phase. Percentages of the organizations by the HR Analytics Maturity level are given in "Table 9" and "Figure 7".

Table 9: Percentage of organizations by the HR Analytics Maturity Level based on the model (Bersin, 2012). Notice that most organizations are at the "Adavanced Analytics" level.

| HR Analytics Maturity Level | Percentage of Organizations |
|-----------------------------|-----------------------------|
| No use of analytics | 0 % |
| Operational Reporting | 20.78% |
| Advanced Reporting | 48.92% |
| Advanced Analytics | 23.38% |
| Predictive Analytics | 6.93% |

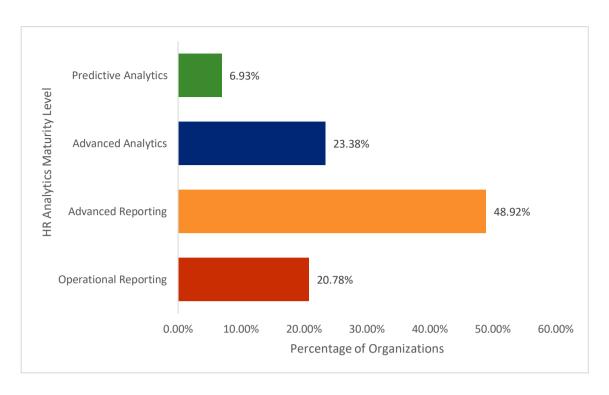


Figure 7:Visual representation for the percentage of Organizations by HR Analytics Maturity Level (Bersin, 2012). Notice that the organizations at "Predictive Analytics" level are still very low (6.93%) in Sri Lankan organizations at "Predictive Analytics" level are still very low (6.93%) in Sri Lanka

4.1.4. HR Analytics Maturity Level by Industry

Results were further analyzed to obtain the HR Analytics maturity level by industry. It was interesting to note that while most organizations are in "Advanced Reporting" level, few industries such as "Wholesale and Retail Trade", "Financial, Insurance and reinsurance" and "Manufacturing" are already applying predictive analytics.

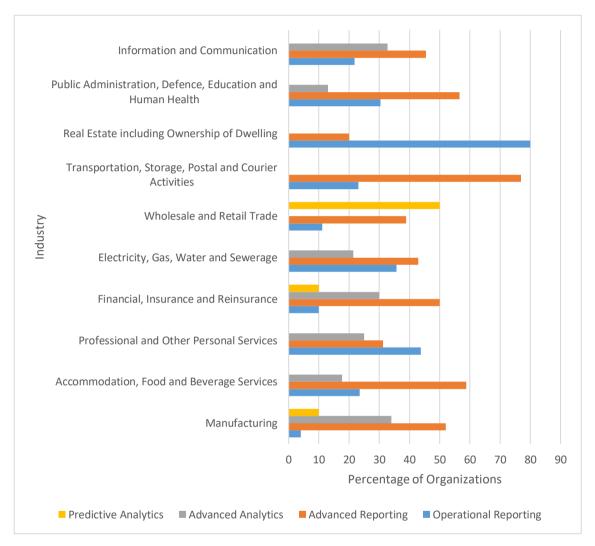


Figure 8: HR Analytics Maturity Level by Industry. Notice that many organizations are in the "Advanced Reporting" Level

4.1.5. Solutions Used for Analytics

Responses indicated that 48.71 % of the companies are using spreadsheets for analytics while 45.26% of the companies use integrated analytics from a HRMS/HRIS system.

28.02% claimed to have a corporate/IT delivered BI system. 17.67% of the companies have a dedicated workforce analytics solution.

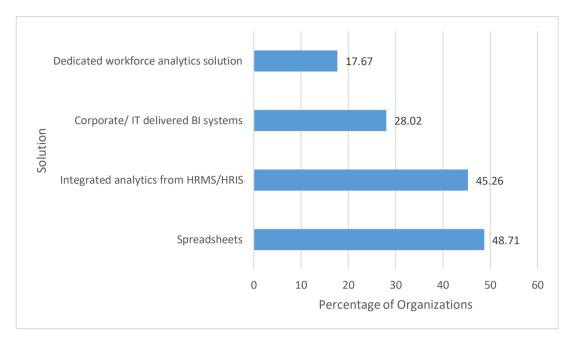


Figure 9: Percentage of Organizations by the solutions used. Only 17.67% have a dedicated workforce analytics solution.

4.1.6. Future Investment

63.48% of the organizations are planning to increase the investment in HR Analytics in the future while 13.04% indicated that they plan to decrease or make no investment.

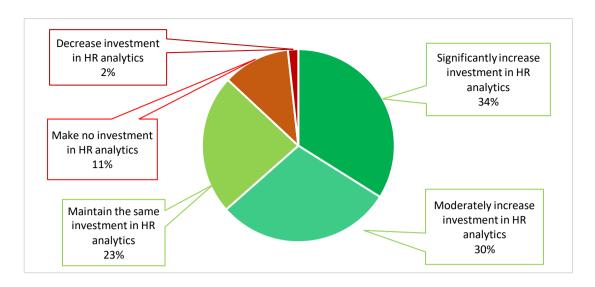


Figure 10: Percentage of Organizations by future investment plans. 63.48% of the organizations are planning to increase or maintain the same level of investment.

4.1.7. Challenges

Lack of analytic acumen and skills among HR professionals was identified as the top challenge whereas, lack of perceived value of a data-driven culture inaccurate, inconsistent, or hard-to-access data requiring too much manual manipulation were also mentioned as challenges.

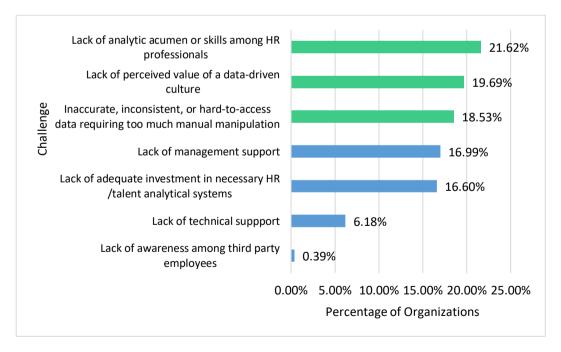


Figure 11: Challenges identified in survey results. Lack of analytic acumen and skills among HR professionals is the top challenge.

4.2. Interview Response Analysis

Interview responses were analyzed using the straussian grounded theory to meet the second and third research objectives given below.

- To find out the key challenges faced by the Sri Lankan companies when implementing HR analytics.
- To make suggestions to overcome the identified challenges and provide recommendations for future research.

Straussian grounded theory uses a coding structure for analysis and avoids too much focus on induction compared to other grounded theory methods. Also, the research process emphases on deduction, verification and validation. (Gary L. Evans, 2013). The workflow followed during interview data analysis is given in figure 12.

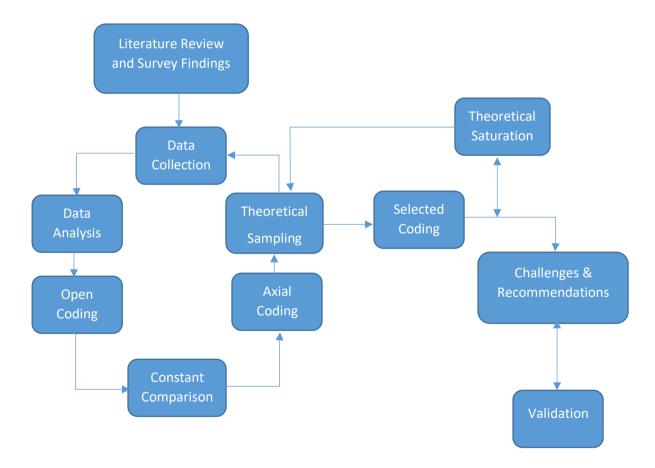


Figure 12: Workflow of the Straussian grounded theory method

Constant comparative analysis, open coding and selective coding was used to develop a substantive theory to define the challenges faced by Sri Lankan organization while implementing HR Analytics and to make suggestions to overcome the challenges identified. Theoretical sampling was used where the sample size was not pre-defined. Next interview respondent was selected based on the findings of the first interview. Theoretical saturation which refers to the point where the researcher feels that no new information is collected through additional interviews was reached at the 5th interview.

Below techniques contributed to reaching the theoretical saturation with few interviews.

- <u>Triangulation</u>: Using multiple methods and sources to gather data. (E.g. surveys, interviews, observations)
- Experience of Participants: Selected the participants who are experienced in HR Analytics implementation.
- <u>Length of Interviews</u>: Lengthy in-depth interviews were conducted to achieve higher information power.
- <u>Use of Theory</u>: Used Bersin (2012) and challenges identified through the questionnaire to strengthen the interview dialogue.

As explained in chapter 3, interviews were conducted in the second phase of the research study. Findings of the first phase were used to plan the second phase. Industries identified in 4.2.1.1. were considered when selecting participants for the interview. Further, questions regarding the challenges identified in the section 4.2.1.7. given priority when discussing the challenges. Most of the responders were reluctant to reveal their true names and companies therefore each of the responders were coded as "respondent 1", "respondent 2", etc. Details of the five interviews conducted are given in "Table 10"

Table 10: Details of the interview respondents. As an ethical research practice, anonymity and confidentiality of the participants were protected by assigning codes to the participants.

| Respondent | Designation | Industry Represented |
|--------------|---------------------|---|
| Respondent 1 | General Manager | Professional and Other Personal Services |
| Respondent 2 | HR Business Analyst | Manufacturing |
| Respondent 3 | HR Manager | Information and Communication |
| Respondent 4 | HR Manager | Wholesale and Retail Trade |
| Respondent 5 | HR Executive | Financial, Insurance and Reinsurance |

4.3. Challenges

4.3.1. Data

Data was identified as one of the key challenges. Data availability was a concern for some companies where they have not collected the data needed to solve HR problems or the collected data are not in the right format. Data accuracy was also highlighted as one of the main data concerns. It was identified that the successful companies have spent many months on data cleansing. Accurate data helps to develop the trust in HR Analytics. On the other hand, if the data are not accurate employees start questioning the validity of the data driven decisions. "Table 11" shows how "Data" was identified as a challenge.

"We took about three months to clean up the system and run all scenarios. Specially scenarios of working from home, offsite working and sudden reallocations. It was a bit difficult to get all these scenarios into picture" (Respondent 1)

"Data cleansing is very important and if you are an old company with years of data in legacy systems, you will need plan time and resources to do proper data cleaning. Full data migration is essential to do a proper analysis" (Respondent 3)

Table 11 : Data as a Key Challenge

| Selected Coding: Data | | |
|-----------------------|---|--|
| Axial Coding | Open Coding | |
| Data Availability | Need full employment history. | |
| | Recollection of data to solve a new problemNot in the right format | |
| Data Accuracy | Improve our data credibility and validity Cannot trust data to be accurate Attendance corrections Accuracy and timeliness of data Clean up the system and run all scenarios Data cleansing is very important. Spend time and effort on data cleansing | |

4.3.2. Standardizing systems and processes

Standardizing the processes and systems is the second challenge identified. The companies who have a standard process in place seems to be more comfortable with the implementation compared to companies without any standardizations.

The management expects us to have a proper justification behind everything we do and to fulfil that requirement, we turn to data analytics. Consolidation of systems is also still in progress. We have been using these systems for a while but now there's a need to standardize across all systems. (Respondent 2)

We were using a HRIS system which did not have a reporting component. Then we migrate to a different BI vendor however due to data inconsistencies we could use data for most recent years only. (Respondent 3)

Integrating the HR system with other systems in the organization was one of the key challenges we had. Our HR system ran in isolation. (Respondent 4)

Table 12 shows how "System and Processes" was identified as a challenge.

Table 12: System and Processes as a Key Challenge

| Axial Coding | Open Coding |
|--------------------|--|
| Standardizing | Need to standardize across all systems Not in the right format Difficult to get all these scenarios into one picture |
| System integration | Links to appraisal system Companywide system So many scenarios to consider Integrate it into all the systems Systems running in isolation does not have power Consolidation of systems Our systems are too complicated HR system ran in isolation |

4.3.3. Skills and Knowledge

Skills and knowledge gap among HR professionals were identified as the third challenge. Lack of business understanding to connect HR goals with overall business goals, Inability to ask the right questions and use dashboards are few of the knowledge gaps observed by the responders. Moreover, lack of analytical skills to perform statistical and quantitative analysis and lack of technical skills to query data from HR databases are some of the skill gaps observed.

"Again, I was lucky, because I had one member who had a specialization in statistics, so we benefitted from that. I agree with you, if the employees did not have any knowledge and if this was a Secretarial HR division this would have been a nightmare. However, in our case we had solid brain power" (Respondent 1)

"They lacked the capabilities to deal with numbers. Their requirements for analytics do not go beyond basic measures. In that sense, there is an apparent skill and knowledge gap. Also, they are used to reading operational reports rather than taking insights from a dashboard" (Respondent 3)

"There seems to be a major knowledge gaps among senior employees in terms of new technology" (Respondent 5)

Table 13 shows how "Knowledge and skills" gap was identified as a challenge.

Table 13: Knowledge and skill gap as a Key Challenge

| Selected Coding: Skills and Knowledge | | |
|---------------------------------------|--|--|
| Axial Coding | Open Coding | |
| Knowledge | HR knowledge gap need to be filled Specialization in statistics HR people had experience in systems Knowledge gaps among senior employees | |
| Skills | Secretarial HR division would have been a nightmare. Do not go beyond basic measures Mainly focused on operational tasks Apparent skills and knowledge gap Lack capabilities to deal with numbers Fill in the analytics skill gap | |

4.3.4. Funding

Funding was identified as the third challenge. "Funding is the act of providing resources to finance a need, program, or project. While this is usually in the form of money, it can also take the form of effort or time from an organization or company". While getting the approval for sufficient budget was observed to be the key challenge related to funding, finding the time and effort for HR analytics implementation was also mentioned as a challenge.

"Getting the budgets approved was also a challenge. Showing the ROI of training is the toughest" (Respondent 2)

"It's a time-consuming process and also, we lack the resources. We have only one developer to improve the system" (Respondent 3)

Reason for this is our system is too complicated. We would need a separate team solely dedicated to HR analytics implementation (Respondent 3)

Table 14 shows how "Funding" was identified as a challenge.

Table 14: Funding as a Key Challenge

| Selected Coding: Funding | | |
|--------------------------|--|--|
| Axial Coding | Open Coding | |
| Budget Approval | Getting budgets approved Showing ROI of training Cost savings Justify the benefits Customization was too expensive | |
| Time and effort | Lack of resources Time consuming process Would need a separate team | |

4.3.5. Leadership

Effective leadership was identified to be the fourth challenge, this seems to be the most critical challenge as well. It was evident that the companies who were successful with HR analytics implementation was able to overcome all the challenges due effective leadership

whereas are companies who are still struggling seems to lack someone who to lead the implementation.

"I think it's how you moderate it. If you are moderate it as a leader, there are many ways to do it. If you are not getting your HR team as part of the implementation and making them as stakeholders, it's going to fail" (Respondent 1)

"We used that team as the guinea-pig and we got their feedback to enhance the system. So, they became part of the system and they felt it is their system than our system. Here, I used all the tricks in the book, I would say, to make sure that the employees believe in the system. We let the employees decide the name of the system and it became a "thing" in the company" (Respondent 1)

"It does require a cultural change. Innovation and taking ownership are very low."

Table 15 shows how "Leadership" was identified as a challenge.

Table 15: Leadership as a Key Challenge

| Selected Coding: Leadership | | |
|-----------------------------|--|--|
| Axial Coding | Open Coding | |
| Initiation and planning | Taking ownership is very low Someone to take the ownership If you implement it the wrong way Change management background Need to have maturity Lack the resources Otherwise it is a tool for a monkey | |
| Shifting the mindset | Changing the mindset Shifting the mindset of people Require a cultural change | |
| Awareness and motivation | Awareness about HR Analytics Gap when it comes to awareness Understand the need themselves Entire company to embrace Understand the importance | |
| Speak the language | Use the same languageChange the languageSpeak that language | |
| Handle Resistance | System is watching There will be resistance See it as a burden Become very skeptical Start questioning Pointing out errors | |

4.4. Phases of implementation

During the analysis, importance of phasing out the HR Analytics implementation was highlighted. Additionally, most of the participants described the challenges faced in each phase separately. This section explains how the phases were derived using open and selective coding.

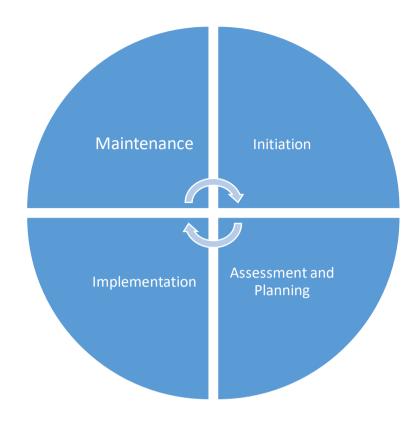


Figure 13: HR Analytics Implementation Phases. Four phases were derived through coding.

4.4.1. Initiation

Initiation of HR analytics seems to follow the same pattern for all companies. A person from the top management realized the value of analytics and started implementing HR analytics.

"I was part of the board, so I pulled it through. The initiative was clear to me so very little questions were asked" (Respondent 1)

"It came from the leadership (top management). They are actively trying to a create data driven culture within the company. The management expects us to have a proper justification behind everything we do and fulfil that requirement, we turn to data analytics" (Respondent 2)

"Our top management updated their knowledge through an HR course which helped them recognize the value of analytics." (Respondent 3)

Some the respondents mentioned about implementing HR analytics as a solution to existing problems of the HR department.

"We identified that the use of analytics in HR is essential to ensure that our resources are utilized in the optimal way and to monitor our progress towards these long-term goals. On the other hand, we encounter daily issues that must be solved with the immediate support of HR Data. This again calls for a link between HR Data and the decision-making process" (Respondent 2)

"On the other our HR cost become higher compared to other departments and the management wanted find the root cause of this issue" (Respondent 3)

The respondent 1 and respondent 2 talked about the importance of timing and waiting for the right moment to initiate HR analytics.

"As a leader, you should be able to judge your success rate before initiating something. Either you have to wait until there's a serious problem in the company and those two stages can solve it. Or you have to push the overall understanding of the company to a level where they appreciate it. If you try to push it without having those scenarios in place, you will not have the momentum. Also, I am waiting to see if one of the leading IT companies or competitors start using this method so we will start realizing what we lack inside." (Respondent 1)

"Finally, you must understand that the business has other priorities as well. You need to pitch it at the right time and the right way" (Respondent 2)

"Leadership support", "Timing" and "Need" were identified to be the key constraints that impact the initiation of HR Analytics. Table 16 shows the derivation of "Initiation" as phase of implementation.

Table 16 : Initiation as phase of implementation.

| Axial Coding | Open Coding |
|-----------------------|--|
| Timing | Pitching it at the right time Pre-mature to jump into advanced analytics Business has other priorities |
| Need | daily issues that must be solved calls for a link between HR Data and the decision-making process our resources are utilized in the optimal way HR cost became higher |
| Leadership support | Top management Identified the need Top management recognized the value Long term strategic goals It came from the leadership Initiative was clear |

4.4.2. Assessment and Planning

The importance of assessment and planning was also highlighted during the interviews. Most of the companies who have implemented HR Analytics successfully have properly assessed the options available and planned out the implementation in phases.

"Eventually once they established it, I phased it out in a way where the difficult, questionable scope became second phase" (Respondent 1)

"Attendance is a good place to enter, then comes leaves. Then only you can upscale to appraisals, exit interview statistics then it takes another 6 months or maximum 1 year if you have a good project plan" (Respondent 1)

"Customization of these reports were too expensive. Therefore, we had to let go of this BI Vendor and find an alternative. This was a huge loss for us in terms of cost. I think should done a proper research before choosing a BI vendor" (Respondent 3)

"Data", "System and Processes", "skills and knowledge" and "Funding" were identified to be the key areas that needed assessment and planning. Table 17 shows the derivation of "Assessment and planning" as phase of implementation.

Table 17: Assessment and Planning as phase of implementation.

| Selected Coding: Skills and knowledge | | |
|---------------------------------------|--|--|
| Axial Coding | Open Coding | |
| Skills and knowledge | HR people had experience in systems had a specialization in statistics Would need a separate team Did not have any knowledge I was hired to fill in the skill gap Only one developer Lack resources We had solid brain power I had the domain knowledge | |
| Data | Data we collected previously Always used operational reporting Not in the right format Wanted HR data to solve daily issues First established the base for attendance and leaves Calls for a link between HR data and decision-making process | |
| System and processes | Finding a solution Choosing BI vendors Analyzed the solutions out there Did not meet our requirements Support customizations Runs as a separate system We were using a HRIS system Did not get code support from vendor Proper justification behind every decision | |
| Funding | Getting the budget approved Showing the ROI Cost Savings HR cost became higher Huge loss | |

4.4.3. Implementation

Implementation appeared to be the core category which has links to all the other categories and factors. The decisions made during the assessment and planning phase are executed during the implementation phase. "Leadership" was identified o be a critical factor that drives the implementation. "Data", "System and Processes" and "Skills and knowledge" were identified as the other factors that impact the implementation.

"Of course. If you implement it in the wrong way, the employees see it as a burden. Employees will realize there's surveillance around them and the system is watching them" (Respondent 1)

"My opinion is, that you have to implement it in a sequence otherwise there will be resistance. We first established the base that is attendance and leaves. Then in joint company forums the initial group started talking good about the system to others. Then we timed it and implemented it in bigger locations and now it is all over" (Respondent 1)

"I was recruited as an initial step of the HR Analytics implementation. I come from a Financial and Statistics background, therefore, after joining the (traditional) HR team, I was able to bring in my analytics knowledge and capabilities to support and improve the HR decision making process." (Respondent 2)

Table 18 shows the derivation of "Implementation" as phase of implementation.

Table 18: Implementation as phase of implementation.

| Selected Coding: Implementation | |
|---------------------------------|-------------|
| Axial Coding | Open Coding |

| Leadership | Moderate it as a leader Good project plan HR team part of the implementation Picked the easiest team first Trial implementation Awareness Got their feedback to enhance Became part of the system Believe in the system Promoted the system Shifting the mindset Implement it in a sequence Difficult and questionable scope became second phase Combination of gut feeling and data insights |
|-----------------------|--|
| Data | We started measuring Everything gets recorded Get into elementary level data and collate it Trust the data Full data migration Statistics give base for your argument Attendance is a good place to enter Exit interview statistics Cluster employees Self-service dashboards Predictive analytics Reactive/proactive reporting Monitor performance Analyze training history |
| Systems and processes | Built it into the workflow Decided to go on our own system Initial deployment HRIS system ERP system that we purchased Customization Performance management and training and development are linked Integrate it to all systems |
| Skills and Knowledge | Slowly shifting to analytical tasks Was hired to fill in the skill gap Hired someone easily |

| Identifying insights from dashboards Requirements for the dashboard | |
|--|--|
|--|--|

4.4.4. Maintenance

Maintenance was identified to be an essential phase that sustains the success of HR analytics implementation. Maintaining the "Systems and processes" was identified and also maintaining the usage of analytics and speaking the language through effective "leadership" were identified as challenges of maintenance. Maintaining the "funding" was also mentioned as a challenge under this category.

Table 19 shows the derivation of "Maintenance" as phase of implementation.

Table 19: Maintenance as phase of implementation.

| Selected Coding: Maintenance | |
|------------------------------|--|
| Axial Coding | Open Coding |
| System and Processes | In house product maintenanceSupport |
| | Upgrading |
| Leadership | No point collecting data if you are not analyzingSpeak the language |
| | Disseminate knowledge |
| | Surface it and move it to decision making level |
| Funding | Invest more in HR Analytics |
| | Justify benefits |
| | Track success |

4.5. Challenges by phase of implementation

It was identified that the organizations faced different challenges during each phase of the implementation process. This section presents the identified challenges for each phase.

4.5.1. Challenges faced during initiation

Organization who have successfully implemented HR Analytics stated that the management initiated the HR Analytics implementation there receiving management support is critical to initiating the HR Analytics. It was also identified that the initiation requires the right timing and need. Some participants stressed the importance of waiting for the "need" to be created instead of implementing the process prematurely. Furthermore, businesses may have other priorities therefore it is necessary to "time" the initiation. Figure 14 displays the challenges faced during the initiation phase.

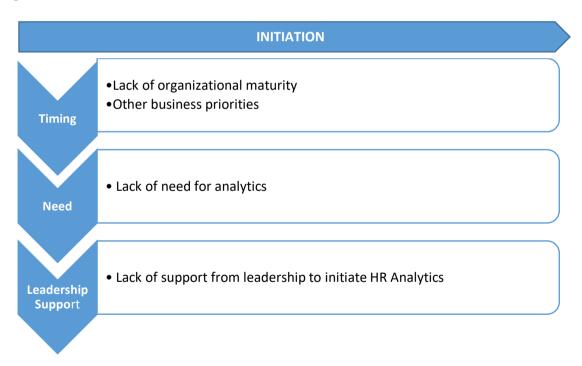


Figure 14: Challenges faced during initiation. Timing, Need for Analytics and Leadership Support were identified as key challenges of this phase.

4.5.2. Challenges faced during Assessment and Planning

It was observed that some companies have implemented HR Analytics without proper assessment and planning which caused major losses in terms of cost. Finding the right resources to fill in the skill gap, finding a suitable solution to cater the analytics requirements, preparing budgets and getting the approvals are some of the challenges faced in this phase. Figure 15 displays the challenges faced during the assessment and planning phase.

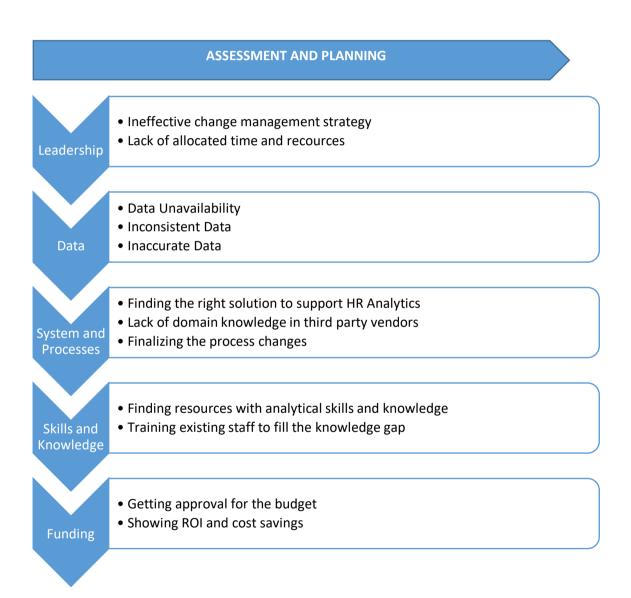


Figure 15: Challenges faced during Assessment and Planning. Leadership, Data, System and Processes, Skills and Knowledge and Funding are identified as key challenges of this phase.

4.5.3. Challenges faced during implementation

Leading the change is the main challenge the organizations should overcome during the implementation. Shifting the mindset to use the analytics approach instead of traditional methods, creating awareness and filling the skills and knowledge gap and integration of systems are few of the challenges faced during this phase. Figure 16 displays the challenges faced during the implementation phase.

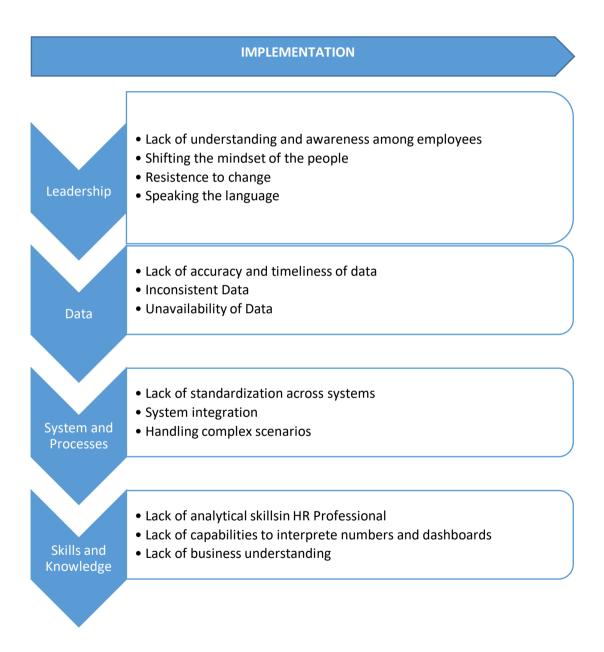


Figure 16: Challenges faced during implementation. Leadership. Data, System and Processes, Skills and Knowledge were identified as the key challenges.

4.5.4. Challenges faced during maintenance

Some participants mentioned the maintenance as the most challenging phase. It is important to sustain the implementation effort in order to reap the benefits of HR Analytics. If the solutions are built in house maintain the product can be the main challenge. Further, the use of analytics for decision making should be encouraged and maintained. Moreover, the budgets should be maintained while tracking the success and justifying the cost. This is important to ensure the analytics function is properly funded. Figure 17 displays the challenges faced during the implementation phase.

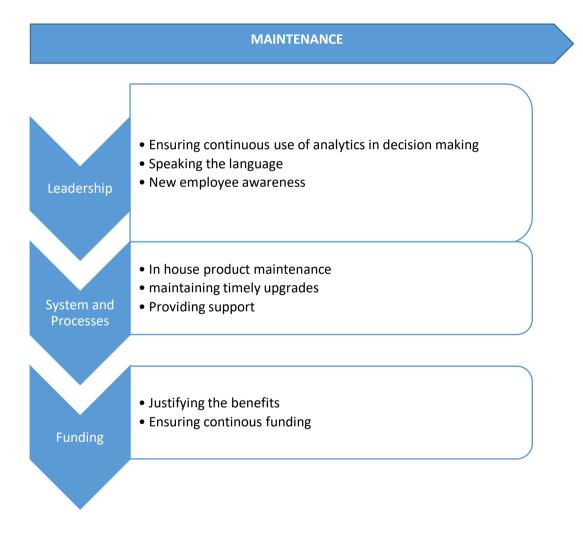


Figure 17: Challenges faced during maintenance. Maintaining leadership, funding, systems and processes were identified as key challenges.

4.6. Guidelines

While conducting the interviews it was apparent that the organizations have implemented HR analytics based on a "Trial and error" approach. Even leaders who have implemented HR Analytics successfully have used their previous change management experience to make the implementation however due to lack of standards and guidelines specifically designed for HR analytics implementations some organizations have made major mistakes along their HR Analytics journey which has caused huge financial losses. Bearing these facts in mind, following recommendations have been constructed as guidelines for each phase of implementation.

4.6.1.1. Initiation

Initiation can be the most difficult for some organizations specially in places where people are comfortable with traditional practices. During the interviews the participants mentioned about the importance of "momentum" when trying to initiate HR Analytics. Leaders should be able evaluate the rate of success before initiating the change. Below points were identified as important factors to consider during the initiation phase.

• Define a Clear Purpose

It is well worth to identify the need for analytics in the organization during the initiation phase. It is important to set a clear purpose and decide on the goals to achieve. Literature recommends limiting the focus to solve three to five most important business problems. (Rasmussen & Ulrich, 2015). The problems should be evaluated in terms of the business impact, priority, cost and time and effort needed. Measuring the business impact calls for a link between HR data and other business data therefore all stakeholders should be included when formulating the purpose of HR Analytics. Another mistake organization can make is to implement HR analytics at the wrong

time, a simple check to decide if HR Analytics is a priority would be to ask "Does it help to solve the challenges facing our organization in the next three to five years?" (Rasmussen & Ulrich, 2015). If the answer is yes, then HR Analytics can be considered a priority if not, it is advised to wait till it gains momentum.

• Build a Strong Business Case

The study observed that the support of leaders and other stakeholders is important for the success of implementation. Getting the "Buy-in" for HR Analytics can be difficult due to number of reasons. The benefits of analytics are mostly long term, also, one of the key benefits are related to reducing the risks which is hard to quantify. Therefore, HR professionals should understand how HR Analytics will contribute to achieve the goals set under organizational strategy. The goals should be communicated in the form of a "persuasive pitch" to get the attention of all stakeholders. Efficiency gains, direct workforce benefits, business benefits (Ian Cook, 2015), Use of analytics to justify the benefits of analytics (Rasmussen & Ulrich, 2015) are some of the key points to consider when creating the business case.

4.6.1.2. Assessment and planning

Assessment and planning were identified to be the most critical phase which decide the success of the implementation. If the assessment and planning is done thoroughly then the implementation can be done smoothly.

Formulate a data governance strategy

Availability, accuracy and quality of data should be accessed during this phase. Findings drawn from literature suggests creating a "cross-functional data team" including key members from each function in the business, the board and the HR leaders to handle the data quality issues and link data across the organization. (Scott Mondore, 2011) First, review the data that are currently collected and check if the data are accurate and in the correct format. Next, explore the other areas for which data is

not is not collected and decide on the format the data should be collected. Also, decision regarding which data to keep and remove can be taken during this phase.

Outcome of this assessment should be a data governance strategy which ensures the accuracy and validity of data to be used to business decision making.

• Standardize the processes and integrate the systems

It was observed that the organizations which have standardized processes find it easy to implement HR Analytics. For example, if you have a standardize process for data collection any anomalies can be detected and rectified easily. Therefore, organizations are advised to document and standardize all processes in HR.

Further a decision should be made whether the analytics solution should be developed in house or should it be purchased from a third-party vendor. The research findings indicate that BI solutions available in the Sri Lankan market are weak in analytics module and the customizations are expensive. Therefore, it is important to do a proper vendor analysis and see if the organizational requirements can be met and if the cost can be justified.

If the decision is made to build an in-house product then the time, resources and budgets should be planned accordingly. For technical organizations, building the product in-house can be a better option since they have necessary technical skills.

• Plan to fill the Skill and knowledge gap.

Skills and knowledge of the employees specially the HR team, IT Team and the leadership should be accessed to identify the skill and knowledge gaps and the resources that are critical in the implementation process should be identified. Next, decision should be made whether the trainings will be sufficient to fill the skill and knowledge gap or if it is necessary to hire new resources. If hiring is required, the recruitment time should be estimated, and the skill requirements and job descriptions should be planned.

• Funding

Once the assessment is completed for all above areas, the budget requirements should be accessed, and relevant approvals should be acquired. Return on investment and cost justifications should be provided when requesting for approval. Some organizations opt to fund the implementation under research and development which does not require immediate ROI.

4.6.1.3. Implementation

If the initiation, assessment and planning phases are completed according to the recommendations mentioned above, the implementation can run smoothly as only execution and monitoring is required. Throughout the study importance of leadership in driving the implementation was highlighted. It was also noted that the organizations who were successful in HR Analytics have phased out the implementation.

• Lead the change

Implementation is highly depended on the leaders who drive the change. Change champions should be appointed within team to lead the change. General change management principals should be applied for this process. Employee resistance is expected, and leaders are advised to moderate the implementation in way that employees feel part of the implementation.

• Phase out the implementation

It is recommended to roll out the implementation in phases where the difficult and questionable scope comes in later phases. Also, starting the implementation with a pilot group is recommended rather than implementing company wide. Feedback and learnings from the pilot run can be used to improve the process and the pilot group can be used as agent to promote the implementation.

4.6.1.4. Maintenance

Maintenance is critical challenge therefore this should be considered as well to sustain the implementation. The study indicates that after implementation efforts will be wasted if the organizations do not take necessary measures to sustain HR Analytics.

• Speak the language

Leaders should ensure that the data collected are used for decision making and the language is spoken throughout the company. Ultimately everyone in the company should understand how the work they are doing impact the business every day. Leaders should demand statistics and evidence for all decisions made.

• Maintain the systems

Maintaining the HR systems is important to sustain HR Analytics. It is recommended to use a HR maintenance checklist to ensure the avoid neglecting maintenance. Review of access and security policies, systems alignment with the objectives, applying vendor maintenance upgrades, decommissioning the obsolete systems, conducting third party audit are some of actions required under this stage.

• Maintain the Funding

To maintain HR Analytics, it is important to receive continuous funding. Specially, when the implementation is phased out. Positive outcomes of the first phase such as, cost savings through efficiency gains and risk identification, additional revenue gained through new opportunities and insights should be shown to receive funding for the next phase.

4.7. Validation of the results

Qualitative research validation methods were researched literature and suitable techniques were incorporated throughout the study to ensure the validity of the results. (Lincoln and Guba 1985) identifies credibility, transferability, dependability, and confirmability as criteria to access the quality of qualitative research studies. Further the straussian grounded theory method used for this study has integrated approach where the validity of results are constantly assesses through constant comparative

analysis and theoretical sampling. Following techniques were used check the validity of results.

4.7.1. Triangulation

Triangulation refers to using multiple sources, methods to collect data which helps to enrich the thickness of data. (Le Navenec, 1993, pp. 88-89). This study used the mixed methods research approach therefore both survey and interview data were collected. Also, the findings of the survey were also used as input for qualitative data collection. In addition to interview responses, field notes, non-participant observations were also used to improve the quality of data collected.

4.7.2. Respondent Validation

Respondent validation refers to checking the accuracy of data gathered and the theory developed with the respondents (Bloor, 1978; Lincoln & Guba, 1985). After the initial interviews, the transcripts were shared with the respondents to check if their ideas are captured accurately and to give them the opportunity to add or alter their responses. Respondents were contacted again after the recommendations were developed to get their feedback.

5. CONCLUSIONS AND FUTURE WORK

This chapter provides a summary of the main findings of the study while explaining how the research objectives were met. Further, based on the overall research experience set of recommendations are provided for the benefit of any organization trying to implement HR Analytics in Sri Lanka. Final section discusses the limitations and future work.

5.1. Level of HR Analytics Maturity

The first objective of the research study was to measure the level of HR Analytics maturity in Sri Lanka. A survey questionnaire adopted from the research paper (Molefe, 2013) was used collect data from organizations and the responses were evaluated to obtain an overall maturity score. The maturity score was then mapped to the maturity levels derived from the talent analytics maturity model (Bersin, 2012). From the four levels, Operational Reporting, Advance Reporting, Advance Analytics and Predictive Analytics, highest percentage (48.92%) of organizations belong to the "Advanced Reporting" phase.

Advanced reporting refers to the phase where the organization is using data proactively and the operational tasks are monitored through dashboards. At this level, the organization already has streamlined processes in place. Also, the benchmarks and trends are analyzed to support decision making.

Further, it was identified that certain industries have higher level of HR analytics application compared to others. Manufacturing industry was identified to have higher use of HR analytics. Financial, Insurance and Reinsurance, Wholesale and Retail Trade, Accommodation, Food and Beverage Services, Professional and Other Personal Services, Information and Communication are some of the other industries identified to have a significant use of HR Analytics. Some organizations in Wholesale and Retail Trade, Financial, Insurance and Reinsurance and Manufacturing are already in the "Predictive Analytics" phase.

In addition to industry type, Survey results indicated that organizations with more than 250 employees are more likely to use HR Analytics whereas the organizations with less than 10 employees are likely to have no use of analytics. When the organization size is less than 10 the management can address employee needs in one on one therefore use of analytics may not be a priority for those organizations.

Regarding future investment in HR analytics, 63.48% of the organizations indicated that they are planning to increase the investment in HR Analytics in the future while 13.04% indicated that they plan to decrease or make no investment in HR Analytics.

According to the above results, HR Analytics is making a positive progress in Sri Lanka where most of the organizations have set the correct foundation to move up to advance levels of analytics maturity. Certain industries such as Manufacturing and Wholesale and Retail Trade were identified as influencers in the HR Analytics in Sri Lanka.

5.2. Key Challenges

Five key challenges that Sri Lankans face during HR Analytics implementation were identified. Inaccurate, inconsistent or hard-to-access data requiring too much manual manipulation was identified as the key challenge. Standardizing the systems and processes is the second challenge which is closely related to the second challenge. In order to ensure the data consistency, the systems need to be integrated and the processes should be standardized across the organization. Systems working in silos will not add any value to achieving the business goals. Providing effective leadership is identified to be the third challenge that impacts the success of the implementation. Leaders are advised to make employees feel part of the implementation.

Lack of skills and knowledge among HR professionals was identified as the fourth challenge. Most of the HR professionals are familiar operational reporting therefore find it difficult to move into analytical mindset. Funding was mentioned as the fifth challenge, participants stated that showing the ROI for the implementation costs was the toughest.

5.3. Guidelines

Based on the respondents' experience and lessons learnt, this research study developed a set of guidelines to be followed at each phase of HR Analytics implementation. Sri Lankan organizations who are planning to implement HR Analytics in the future can benefit from these guidelines to make their implementation successful.

During the initiation phase, organizations are advised to evaluate the need for analytics and define a clear purpose agreed by all stakeholders. Importance of creating a strong business case is also highlighted in order to get leadership support. Assessment and Planning phase is identified as the most critical phase that decides the success of the implementation. During this phase organizations should first evaluate and understand the status of Data, system and process, skills and knowledge and funding, then formulate strategies to overcome the identified gaps. Implementation phase is highly dependent on the leaders and how they drive the change. Leaders are expected to make employees feel part of the implementation. It is recommended to start with a pilot group and gradually expand the implementation company wide. Maintenance phase is important to sustain HR Analytics within the company. Leaders should make sure the language is spoken and data is used for decision making. Systems should be well maintained. Evidence to justify the benefits of HR Analytics should be maintained to ensure continuous funding.

5.4. Future work

This study provides a general view of HR Analytics in Sri Lanka. Future work is encouraged to conduct case studies to provide practical evidence to benefits of HR Analytics. Also, the guidelines can be improved further develop industry specific frameworks considering the challenges unique to each industry.

5.5. Summary

The objective of the study specified in in the first chapter, were successfully achieved through this research effort. Findings indicate that most of the Sri Lankan organizations are in the "Advanced Reporting" level. Although this is the second level in the analytics maturity model, this indicates that the organizations are setting the

right foundation to reach to advanced levels of analytics in the future. Main challenges of implementing HR Analytics were observed to be inaccuracy, unavailability and inconsistency of data, lack of standardized processes and systems, lack of skills and knowledge, leadership and funding. Future work is recommended to conduct case studies and build industry specific frameworks to guide Sri Lankan organizations in their HR Analytics journey.

References

- Johnston, J. (2017, Sep 12). *Put Your HR Data to Work Amping Up the Employee Experience*. Retrieved from www.salesforce.com: https://www.salesforce.com/blog/2017/09/hr-data-employee-experience.html%20
- van den Heuvel, S., & Bondarou, T. (2017). The rise (and fall?) of HR analytics. *Journal of Organizational Effectiveness: People and Performance*, 157-178.
- Angrave, D., Charlwood, A., Kirkpatrick, I., Lawrence, M., & Stuart, M. (2016). HR and analytics: why HR is set to fail the big data challenge. *Human Resource Management Journal*, 1-11.
- Bank, C. (2016). Annual Report.
- Berry, M. (2016, March 31). *HR Analytics The "GPS" of True HR Transformation*. Retrieved from http://www.visier.com: http://www.visier.com/clarity/hr-analytics-the-gps-of-true-hr-transformation/?utm_campaign=b10316rr&utm_medium=b&utm_source=rr
- Bersin, J. (2012). Big data in HR: Building a competitive talent analytics function—The four stages of maturity. *Bersin White Paper*, 1-84.
- Blogs. (2018, July). Retrieved from www.quantzig.com:
 https://www.quantzig.com/blog/challenges-analyticshr?utm_source=T1&utm_medium=Request&utm_campaign=businesswire
- Casio, W. F., & Boudreau, J. W. (2011). In *Investing in People: The Financial Impact of Human Resources*. Upper Saddle: Pearson.
- Challenges, Benefits and Best Practices for Implementing People Analytics. (2016).

 Retrieved from employeeexperiencesummit.ca:

 https://employeeexperiencesummit.ca/wp-content/uploads/2018/05/People-Analytics-Ebookv4.pdf
- Company, B. &. (2016). *ORGANISING FOR HR ANALYTICS SUCCESS*. Retrieved from www.top-employers.com: https://www.top-employers.com/en/insights/performance-management/organising-for-hr-analytics-success/
- Creswell, J. W. (2014). *Research Design* (4th Edition ed.). California: SAGE Publications, Inc.
- Dewri, P. (2015, November 7). *Human Resources Articles*. Retrieved from www.mbaskool.com: https://www.mbaskool.com/business-articles/human-resource/14666-challenges-in-implementing-hr-analytics.html
- Dictionary Definitions. (n.d.). Retrieved from www.yourdictionary.com: https://www.yourdictionary.com/time
- Economic factors. (n.d.). Retrieved from www.businessdictionary.com: http://www.businessdictionary.com/definition/economic-factors.html
- Fink, A. (2010). In *New trends in human capital research and analytics* (pp. 15-21). People and Strategy.

- Fortune-Fortune 500 Daily and Breaking Business News. (2017). Retrieved from http://fortune.com: http://fortune.com/best-companies/2017/
- Fuard, Z. (2017, September 13). *Business*. Retrieved from Daily News: http://www.dailynews.lk/2017/09/13/business/128027/paving-way-big-data-analytics-sl
- Gary L. Evans, L. J. (2013, August). A Novice Researchers First Walk Through the Maze of Grounded Theory: Rationalization for Classical Grounded Theory. The Grounded Theory Review.
- Gurusinghe, R. N., Arachchige, B. J., & Dayarathna, N. W. (2019). Identified Research Gaps in HR Analytics. *Management, Social Sciences and Humanities*.
- HR joins the analytics revolution. Harvard Business Review Reports. (2014). Retrieved from hbr:
 https://hbr.org/resources/pdfs/comm/visier/18765_HBR_Visier_Report_July2014.pd
 f
- Ian Cook, D. P. (2015). The Datafication of HR: Building your Business Case for Workforce Analytics and Planning.
- *ICT Services Export Overview*. (n.d.). Retrieved from www.srilankabusiness.com: http://www.srilankabusiness.com/export-services/ict/
- IT Support. (n.d.). Retrieved from dictionary.cambridge.org: https://dictionary.cambridge.org/dictionary/english/it-support
- *Knowledge*, *Skills*, *and Abilities*. (n.d.). Retrieved from https://en.wikipedia.org: https://en.wikipedia.org/wiki/Knowledge, *Skills*, and *Abilities*
- Kumar, M. (n.d.). *Difference Between Knowledge and Skill*. Retrieved from http://www.differencebetween.net: http://www.differencebetween.net/language/difference-between-knowledge-and-skill/
- Laurence, C., Fineman, D. R., & Tsuchida, A. (2017, 228). *People analytics: Recalculating the route*. Retrieved from www2.deloitte.com: https://www2.deloitte.com/insights/us/en/focus/human-capital-trends/2017/people-analytics-in-hr.html
- Lee, J. (2015, June 8). 5 REASONS HR STRUGGLES WITH HR DATA ANALYTICS. Retrieved from www.hirevue.com: https://www.hirevue.com/blog/5-reasons-hr-struggles-with-using-big-data
- Levine, D. M., Stephan, D. F., Krehbiel, T. C., & Berenson, M. L. (2008). *STATISTICS FOR MANAGERS USING Microsoft Excel*. New Jersey: Pearson Education.
- Lismonta, J., Vanthienen, J., Baesens, B., & Lemahieu, W. (2017). Defining analytics maturity indicators: A survey approach. *International Journal of Information Management*, 114-124.
- Management Support. (n.d.). Retrieved from the freedictionary: https://financial-dictionary.the freedictionary.com/management+support

- Miller, G. (2017, January 30). *Compliance, Privacy, and Security...What's the Difference?* Retrieved from Educausereview: https://er.educause.edu/blogs/2017/1/compliance-privacy-and-security-whats-the-difference
- Molefe, M. (2013). From data to insights: HR analytics in organisations.
- Myers, M. D. (2008). *Qualitative Research in Business & Management*. Thousand Oaks, CA: SAGE Publications.
- Qadir, A., & Jolly, J. (2019). Mapping Theory and Practice of HR Analytics for Strategic Human Resource. *Singapore Management Journal*, 7-26.
- Rasmussen, T., & Ulrich, D. (2015). Learning from practice: how HR analytics avoids being a management fad. *Organizational Dynamics*, 236-242.
- Rouse, M. (n.d.). *BI and Data Warehousing*. Retrieved from www,searchsqlserver.techtarget.com: https://searchsqlserver.techtarget.com/definition/data-preprocessing
- Scott Mondore, S. D. (2011). Maximizing the Impact and Effectiveness of HR Analytics to Drive Business Outcomes. *Strategic Management Decisions*, 21-27.
- Sparrow, P., Hird, M., & Cooper, C. (2015, September). *DoWe Need HR? Repositioning PeopleManagement for Success*,. Basingstoke: Palgrave Macmillan. Retrieved from Oracle: http://www.oracle.com/us/solutions/ent-performance-bi/045039.pdf
- Statistics, D. o. (2016). Annual Survey of Industries.
- Statistics, D. o. (2016). Annual Survey of Trade and Services.
- Sturdy, A. (2011). Consultancy's consequences? A critical assessment of management consultancy's impact on management. *British Journal of Management*, 517-530.
- Sullivan, D. J. (2013, February 6). *How Google Is Using People Analytics to Completely Reinvent HR*. Retrieved from www.tlnt.com: https://www.tlnt.com/how-google-is-using-people-analytics-to-completely-reinvent-hr/
- Sullivan, P. (2017). *HR Analytics: Challenges and Drivers in an Evidence-Based Business World*. Retrieved from programs.online.american.edu.
- Trends in People Analytics. (2015). Retrieved from pwc: http://www.pwc.com/hr-analytics
- van den Heuvel, S., & Bondarouk, T. (2017). The rise (and fall?) of HR analytics. *Journal of Organizational Effectiveness: People and Performance*, 157-178.
- Varghese, D. M. (2017). HR Analtyics Impact on Human Resource function and Skillset of HR Pofessionals. *HR analytics practices and perspectives*, 10-17.
- What is organizational Culture? (n.d.). Retrieved from gothamculture.com: https://gothamculture.com/what-is-organizational-culture-definition/
- Why people management is replacing talent management. (2015, January). Retrieved from joshbersin: http://joshbersin.com/2015/01/why-people-management-is-replacing-talent-management/

APPENDIX A: Request Email

Dear Sir / Madam

I'm conducting a survey as part of my research for Master's thesis. Purpose of the research is to identify the challenges faced by Sri Lankan organizations while implementing HR analytics into current HR practices.

Your participation is entirely voluntary, and your anonymity is protected by your name or your company's name. The information provided is treated as strictly confidential and only be utilized for academic purposes. Only the researcher will have the access to the complete questionnaire.

I am truly grateful for your valuable time spent on completing this questionnaire attached. Please do not hesitate to contact me for any further clarifications on manuri.amodhi.17@cse.mrt.ac.lk

I would appreciate if you can take part in this survey via the link attached herewith or circulate the link among HR professionals in Sri Lanka.

Kind Regards,

Manuri

APPENDIX B: Survey Questionnaire

1. Select your sector of employment

o Public

visuals that are up to date and available on

We analyse and make proactive predictions about our workforce—

demand

| Private | | | | |
|---|--------------------|-------------------|-------------------|-----------|
| o Not-for- | profit | | | |
| 2. Which of the foll work in?3. How long has the | | | | • |
| years)? | o organization for | wineir you are w | orking emisted to | auto (III |
| 4. How many emplo | oyees are employ | ed at your organi | zation currently? | |
| 5. Does your organiYesNo | • • | • | • | |
| 6. Select from the li which workforce organization. | | - | | |
| | Talent | Performance | Training and | Employee |
| We rarely use data to | Acquisition | Management | development | Retention |
| | | | | |
| inform decisions | | | | |
| inform decisions We use data reactivel | y | | | |
| we use data reactively typically via ad hoc | у | | | |
| We use data reactively typically via ad hoc reporting—to inform | | | | |
| We use data reactively typically via ad hoc reporting—to inform only critical workford | | | | |
| We use data reactively typically via ad hoc reporting—to inform | | | | |
| We use data reactively typically via ad hoc reporting—to inform only critical workford | re | | | |
| We use data reactively typically via ad hoc reporting—to inform only critical workford decisions. We use data proactively—typically via operational reporting. We analyse our | re | | | |
| We use data reactively typically via ad hoc reporting—to inform only critical workford decisions. We use data proactively—typically via operational reporting. We analyse our workforce | y y | | | |
| We use data reactively typically via ad hoc reporting—to inform only critical workford decisions. We use data proactively—typically via operational reporting. We analyse our | y y | | | |

| typically via dashboards and visuals that contain predictive analytics. | | | | |
|--|--|--|--|--|
|--|--|--|--|--|

- 7. Which solution do you use to manage your HR/workforce analytics? Pick all that apply.
 - o Spreadsheets
 - o Corporate/ IT delivered BI systems
 - o Integrated analytics from HRMS/HRIS
 - Dedicated workforce analytics solution
- 8. Over the next two years your organization is likely to
 - o Significantly increase investment in HR analytics
 - o Moderately increase investment in HR analytics
 - o Maintain investment in HR analytics
 - o Decrease investment in HR analytics
 - o Other- Please specify
- 9. What is the main challenge that your organization faces while implementing HR analytics or the reason your organization has not implemented HR analytics yet?
 - Lack of perceived value of a data-driven culture; company does not have a data-driven culture
 - Inaccurate, inconsistent, or hard-to-access data requiring too much manual manipulation
 - o Lack of analytic acumen or skills among HR professionals
 - Lack of adequate investment in necessary HR /talent analytical systems
 - o Lack of support or expectations by C-suite executives
 - o Other Please specify

APPENDIX C: Maturity Score Calculation

- 5. Does your organization use analytics to manage the workforce? (Weight = 10)
 - O Yes, most of the time-2 points
 - O Yes, Sometimes 1 point
 - \circ No 0 points
- 6. Select from the list below the one description that best describes the extent to which workforce-related data plays a role in the decision-making style of your organization.

| Talent | Performance | Training and | Employee |
|-------------|------------------|--|--|
| Acquisition | Management | development | Retention |
| 0 points | 0 points | 0 points | 0 points |
| 1 point | 1 point | 1 point | 1 point |
| | | | |
| 2 points | 2 points | 2 points | 2 points |
| 3 points | 3 points | 3 points | 3 points |
| | 1 point 2 points | 0 points 1 point 1 point 2 points 2 points | 0 points 0 points 1 point 1 point 1 point 2 points 2 points 2 points |

| We analyze and make proactive predictions about our workforce—typically via dashboards and visuals that contain predictive analytics. | 4 points | 4 points | 4 points | 4 points |
|---|----------|----------|----------|----------|
| unary tres. | | | | |

- 7. Which solution do you use to manage your HR/workforce analytics? Pick all that apply. (Weight =1)
 - o Spreadsheets 1 point
 - o Corporate/ IT delivered BI systems 2 point
 - o Integrated analytics from HRMS/HRIS 3 point
 - o Dedicated workforce analytics solution- 4 point
- 8. Over the next two years your organization is likely to (Weight =1)
 - o Significantly increase investment in HR analytics 3 points
 - o Moderately increase investment in HR analytics 2 points
 - o Maintain investment in HR analytics 1 point
 - o Decrease investment in HR analytics- 0 points
 - o Make no investment in HR analytics 0 points

APPENDIX D: Interview Guideline

INTERVIEW GUIDE: CHALLENGES FACED BY ORGANIZATIONS WHILE IMPLEMENTING HR ANALYTICS IN SRI LANKA

Introduction

- The interview will last approximately one hour.
- The interview is for research purposes only.
- Copy of the research results will be shared with you, if required.
- This is a semi-structured interview therefore the interviewer may change the depending on the context.

Introductory Questions

- 1. Could you please describe your current position in this organization?
- 2. How would you define HR Analytics?
- 3. How long have you been working with HR Analytics?
- 4. What is your interaction with HR Analytics implementation process?

Key Questions

Initiation

- 5. What are factors that motivated you to start on the analytics journey? Were you looking to solve a specific business problem or was it a reaction to competition and trend?
- 6. Who initiated the idea of HR analytics? Top management, HR department or any other department?
- 7. How ready was your organization to start on the analytics journey?

Challenges

- 8. What are the main challenges you faced while implementing HR Analytics?
 - ➤ Depending on the answer to question 8, some of the questions from the additional questions section will be discussed.

• Application

- 9. What methods/platforms/ software do you use to apply HR Analytics?
- 10. Did you apply HR Analytics to all four areas of HR (Talent Acquisition, Training and Development, Performance Management, Employee Retention)?
- 11. Is there a team dedicated to HR Analytics implementation?

• Success and Future plans

- 12. Are you satisfied with the impact HR Analytics? Did you achieve your objectives?
- 13. How would you access the HR Analytics Maturity of your organization? (Based on the given model)
- 14. What are the future plans of your organization with HR Analytics?



Source: Bersin by Deloitte Frameworks and Maturity Models

• Suggestions and Recommendations

- 15. Can you please share some lessons learned during the phases of design, implementation and use of HR analytics?
- 16. What are the best practices for the design, implementation and use of HR Analytics you would recommend to an organization starting on HR Analytics?

Closing questions

17. Before we conclude the interview, is there anything that you would like to add that we have not yet had the chance to discuss?

Additional Questions

- Are data used to drive decisions within the company, or do questions about the data quality and timeliness limit its usefulness?
- Did you already have the professionals with the analytical skill set or how did you build on the analytical capabilities?

- Did the HR analytics implementation require a cultural change?
- Do you think if employees are used to following a structured decision-making process, the transition to an analytics-assisted process is much simpler because it is familiar?
- How did you get the support of top management?
- Did the organization expect an analytics team to directly return a profit, or view analytics as a research and development expense without direct profit and loss responsivity?
- How did HR professionals, react to changing the traditional methods they have been using for years? For example, using intuition to make hiring decisions?
- HR analytics implementation can be a time-consuming process. How did you plan the execution?
- How did you create awareness about HR Analytics among employees?
- How did employees react to the change?
- Did you already have the technical expertise and resources to implement HR Analytics?
- Did you face any challenges related to privacy, security or legal compliance?

APPENDIX D: Interview Records

Interview 1

Introductory Questions

18. Could you please describe your current position in this organization?

I am the general manager. I handle almost all every side of the business and HR is directly under me. I have been working here for 12 years now. We have two companies. One is about 80 members and the other 260 members. All graduates and executive grade staff. We are doing product development and provide business support services in the financial services industry. We manage a lot of clients. What I am responsible for is to make sure that we have a technology Center in Sri Lanka so that we gain competitive advantage with our technical capabilities. Most of our competitors cannot compete with us without having a good technology team. We take HR very seriously and make sure the people whom we recruit and the people who are staying with us have very good skills and they can continue to produce good results. So that's in a nutshell if you ask me what I do.

- 19. Are your clients local or foreign?
 - Yeah both our clients and competitors are outside of the country. So, we must keep up with the trends.
- 20. How long have you been working with HR Analytics?

We have been using HR Analytics for about 5 years now. It has been a very gradual experience. We had very entry level analytics initially for interviews and things like that and then appraisals. Now we have a system in place, so we have a quite a lot of data and we analyze only a few. But we have done a lot during the past 5 years.

21. What is your interaction with HR Analytics implementation process?

We built it into the workflow. So, when people do things, the system keeps collecting what they do. We invested in a HRMS system, we started designing it because we needed to bring in few elements that we needed to analyze on our own. We allow people their natural flow, but we can analyze their attendance and the way they apply leaves. For example, who has accidental leave patterns. And the beauty of it is that this information links to the appraisal system to indicate if they are good in HR practices. So, the analytics part links to the appraisal and then to their performance. This is the same reason why we developed the system on our own.

• Application

22. Did you apply HR Analytics to all four areas of HR (Talent Acquisition, Training and Development, Performance Management, Employee Retention)?

In the interview process we are in a position to identify the high potential candidates and we decide the time we spend on the interview based on that. We have scanning and filtering programs to select the best candidates.

• Success and Future plans

23. Are you satisfied with the impact HR Analytics? Did you achieve your objectives?

No. We have a lot to do. I actually want to get into predictive analytics, data mining, AI etc. The language is not spoken inside the company, so I need to create that. For example, LinkedIn has the technology to suggest jobs for you. I would like something similar in our company where we can predict where the employee is heading. We should be able to take a personalized approach.

Trying to disseminate the knowledge. People should fully understand the need themselves. I am also taking a break while reaping the benefits of phase 1.

We have an in-house product, maintaining it is a challenge. I need allocate resources for this.

24. How would you access the HR Analytics Maturity of your organization? (Based on the given model)

Yes. We are at the advance reporting phase. I have identified that there's a HR knowledge gap that need to be filled to reach the next level. But right now, it is premature to jump into advanced analytics phase. As a leader, you should be able to judge your success rate before initiating something. Either you have to wait until there's a serious problem in the company and those two stages can solve it. Or you have to push the overall understanding of the company to a level where they appreciate it. If you try to push it without having those scenarios in place, you will not have the momentum. Also, I am waiting to see if one of the leading IT companies or competitors start using this method so we will start realizing what we lack inside.

• Suggestions and Recommendations

25. What are the best practices for the design, implementation and use of HR Analytics you would recommend to an organization starting on HR Analytics?

Don't use statistics as the only base for decision making. That's the worst mistake you can do, in statistics you might find some employees as worst performing employees but in reality, they are sometimes your best employees. Other thing is no point collecting data if you are not analyzing it. Lot of companies collect data, but they don't analyze it and move it to decision making level. You have to surface it. When you are having general conversations, somebody in the board has to say, "why don't we look at some stats to take this decision?" Somebody has to change that language. Third thing is you need the entire company to embrace this. It's not only the HR division. It's a companywide system. Everybody has to speak that language. That is

why I encourage a lot of dashboards. Final thing is the most difficult thing. You need to integrate it to all the systems. Statistical system which is running in isolation does not have power. You have to making it a part of organizations running modules. Otherwise, even if you have statistics you can't make any influence. Honestly. HR divisions will thin out and function as a different form. HR is an intelligent game, the companies who do it in an intelligent way will stay ahead of others.

Closing questions

26. Before we conclude the interview, is there anything that you would like to add that we have not yet had the chance to discuss?
I think we have covered everything. I am curious whether there will be a global solution for HR in the future. I feel that companies like LinkedIn will take over this HR Analytics part.

Additional Questions

 Are data used to drive decisions within the company, or do questions about the data quality and timeliness limit its usefulness?

Yes, you are right. Data was a challenge. You need to tap into the DB and extract the data and pass it through a protocol. So, what is difficult is annual holiday calendars, all these are clashed when you try to import and export data. Sometimes people resign, new people join in and some people work offsite. We took about three months to clean up the system and run all scenarios. Specially scenarios of working from home, offsite working and sudden reallocations. It was a bit difficult to get all these scenarios into picture. Now we are fine. Now our issue is attendance corrections because the system is not foolproof.

 Did the organization expect an analytics team to directly return a profit, or view analytics as a research and development expense without direct profit and loss responsivity?

That is a very weak question for us because in our case budget was not a problem. I was part of the board, so I pulled it through. The initiative was clear to me so very little questions were asked. Budget was never a question because I could justify the benefits. 300+ employees but we are running with only two HR people and our hit rate on career fairs is about 90%. Now when we are recruiting, we even know the statistics of people who are likely to get hired. We have scanning and filtering programs select the potential candidates. I understand that this can be a challenge for other organizations. Instead of doing a methodical exit interview, we a train our HR people to qualitatively and quantitatively validate the reasons for leaving, through and indirect information. After building a base, we realize the experienced manager in the division is not providing proper guidance and mentoring to his juniors. Without statistics we can never convince this person about his issue.

We have an organization training (OT) program and we collect information to identify training gaps both project and organizational level. Both the trainer and trainees are reviewed after the trainings. This process is monitored using statistics. However, we haven't integrated that into our system yet, it runs as a separate system. Lead of every project defines a skills assessment for the project and identifies common issues of skill gaps and specific issues of skill gaps. If it is an individual specific skill gap, we provide individual trainings, but I must say that this is rare in our case because we hire at a high IQ level. Benchmarks are set already. Most common trainings are related to domain and technology updates.

 How did HR professionals, react to changing the traditional methods they have been using for years? For example, using intuition to make hiring decisions? They received it very well because their success rate goes up. I was blessed in this case. We had about 10 years combined experience when we implemented it. We had a closed group and in both companies HR people had experience in systems. Otherwise it would have been difficult. Now we have a new employee in HR and it's very easy for her to do things using the system. So, they love it. HR was one of the units that got the best benefit out of this.

I think it's how you moderate it. If you are moderate it as a leader, there are many ways to do it. If you are not getting your HR team as part of the implementation and making them as stakeholders, it's going to fail. Sometimes they don't understand what you are saying are lot of repeated cycles but in the end, they are the once who are implementing the system.

Again, I was lucky, because I had one member who had a specialization in statistics, so we benefitted from that. I agree with you, if the employees did not have any knowledge and if this was a Secretarial HR division this would have been a nightmare. However, in our case we had solid brain power. You need bit of maturity as well to do this. Knowledge level maturity otherwise it is a tool for a monkey.

How did employees react to the change?

Of course. If you implement it in the wrong way, the employees see it as a burden. Employees will realize there's surveillance around them and the system is watching them. So, I knew this from the beginning because I'm coming from a change management background. So, what we did is, we didn't go and try to implement it in the whole company. We picked the easiest team first and I had the advantage of using a separate physical location where everybody is not seated together. I went and narrowed in on the easiest target and they anyway had a problem of sorting out attendance, leaves, figuring out how to bring out efficiency, getting commitment levels up. We ended up promoting it to the employees and the employees promoted the system. That was the trial to implement the system. It was not completely foolproof. There were issues in the initial deployment. We used that team as the guinea-pig and we got their feedback to enhance the system. So, they became part of the system and they felt it is their system than our system. Here, I used all the tricks

in the book, I would say, to make sure that the employees believe in the system. We let the employees decide the name of the system (BrainX) and it became a "thing" in the company. Eventually once they established it, I phased it out in a way where the difficult, questionable scope became second phase. My opinion is, that you have to implement it in a sequence otherwise there will be resistance. We first established the base that is attendance and leaves. Then in joint company forums the initial group started talking good about the system to others. Then we timed it and implemented it in bigger locations and now it is all over. Attendance is a good place to enter, then comes leaves. Then only you can upscale to appraisals, exit interview statistics then it takes another 6 months or maximum 1 year if you have a good project plan.

Difficult phase is when people get to know that the statistics get combined and it starts reflecting on their performance. Then they know, I've got to wash this system because it keeps watching me and then they become very skeptical. For example, they start questioning the statistics and pointing out errors in the system. You've got to manage all that. Also, when the appraisal module come in, people realize that you cannot put subjectivity or qualitative data and get away with it. Because the system keeps validating all that. Statistics give you a base for your argument and transparency as well.

Then we started pushing analytics into our recruitment process. This work in progress, although I say it. We started measuring things like IQ of people, how they faced our interviews. Everything gets recorded so you cannot put your favorites in because the system is monitoring you.

The last one is "exists", earlier people shake hand, collect their reference letter and go but now we get into elementary level data and collate it. When you have certain characteristics repeating as a common pattern, you realize people are not only leaving because of salary. There are other reasons.

Did you already have the technical expertise and resources to implement HR Analytics?

Yes. I had the domain knowledge. We are a technical organization, so we hired someone easily and put the person under all these systems and procedures and we got a proper code to do all these things. But it is not a marketable solution in the sense if you search in the market you won't find it. Before this, we analyzed the solutions available out there. What we realized is that lot of those systems have good attendance, leave management that type of procedures but not very good on the analytics side. This is one of the reasons why we decided to go on our own system.

Interview 2

Introductory Questions

- 27. Could you please describe your current position in this organization?
- 28. How long have you been working with HR Analytics? We started it around 2017. So it's been three years.

Key Questions

Initiation

29. What are the factors that motivated you to start on the analytics journey?

Were you looking to solve a specific business problem or was it a reaction to competition and trend?

Our top management updated their knowledge through an HR course which helped them recognize the value of analytics. On the other our HR cost become higher compared to other

departments and the management wanted find the root cause of this issue.

Challenges

30. What are the main challenges you faced while implementing HR Analytics?

Main challenge was to find a solution to address our requirement. We were using a HRIS system which did not have a reporting component. Then we migrate to a different BI vendor however due to data inconsistencies we could use data for most recent years only. Also this BI solution provided standard reports which did not meet our requirements. Customization of these reports were too expensive. Therefore, we had to let go of this BI Vendor and find an alternative. This was a huge loss for us in terms of cost. I think should done a proper research before choosing a BI vendor. Next BI solution we chose was quite successful because they support customizations and we use it to date.

• Application

31. What methods/platforms/ software do you use to apply HR Analytics?

We use an ERP system that we purchased from an external vendors. It has inbuilt reports. Also we use dashboards that are developed by the IT department according to the requirements given by the HR managers. We use multiple BI tools as well.

Reactive Approach:

- Carder Analysis: Age wise, Gender wise. We decide the early retirements based on the age.
- Reducing Cost: OT analysis
- Transfer analysis
- Retirement forecasting
- Recruitment forecasting is done yet.
- 32. Did you apply HR Analytics to all four areas of HR (Talent Acquisition, Training and Development, Performance Management, Employee Retention)?

Performance Management: We monitor the performance and for the people with low performance, we send a training plan. Then the manager interview these people and identify whether there is a real need for training. Also in the evaluation, the manager suggests a training path for the employees. Additionally we also analyse the training history when considering employees for promotions as well. So, performance management and training and development are linked together.

We don't use the retention module in the BI tool much. Honestly, we don't have a turn over issue. Our turnover rates are really low. We mainly have retirements instead. Resignations are less than 50 per year while the retirements are 1000+. The main issue we have is when most experienced employees retire, we cannot find the right skill to replace that resource.

• Success and Future plans

33. Are you satisfied with the impact HR Analytics? Did you achieve your objectives?

No. There has been a progress but we have a lot to improve. We do not get much code support from the vendor. It's a time-consuming process and also we lack the resources. We have only one developer to improve the system. We do use the attendance, OT, Age analysis dashboards a lot. Forecasting is not used currently.

34. How would you access the HR Analytics Maturity of your organization? (Based on the given model)

I think we have always used operational reporting and over the last few years we were able to touch on some aspects of advanced analytics. For example, we do have customizable, self-service dashboards. In fact, for some areas such as retirement planning we are in the predictive analytics stage however overall we are still on a transition phase between operation analytics and advanced analytics. We still use reactive reporting approach rather than proactive reporting. Also we are not doing any trend analysis yet.

35. What are the future plans of your organization with HR Analytics?

Digitalization is one of our main goals for upcoming years. Therefore, definitely the management will invest more on HR Analytics. We implemented the ERP system few years back and we still have to give it sometime until it becomes more stable.

Suggestions and Recommendations

36. Can you please share some lessons learned during the phases of design, implementation and use of HR analytics?

Before purchasing a tool, do a proper study and compare the options available in terms of cost and resources. There should be someone to take the ownership of the implementation. Data cleansing is very important and if you are an old company with years of data in legacy systems, you will need plan time and resources to do proper data cleaning. Full data migration is essential to do a proper analysis. As an example, we need the full employment history of an employee who worked for us for 15 years, just the recent three years is not sufficient.

37. What are the best practices for the design, implementation and use of HR Analytics you would recommend to an organization starting on HR Analytics?

Additional Questions

• Did you already have the professionals with the analytical skill set or how did you build on the analytical capabilities?

HR professionals were keen on implementing HR Analytics however they lacked the capabilities to deal with numbers. Their requirements for analytics do not go beyond basic measures. In that sense, there is an apparent skill and knowledge gap. Still the requirement for dashboard comes as a reaction to a request by the top management (For example to explain a certain cost). The staff was mainly focused on operational tasks. I see them slowly shifting to analytical task however they have a long way to go.

• Did the HR analytics implementation require a cultural change?

It does require a cultural change. Innovation and taking ownerships is very low. Reason for this is our system is too complicated. We would need a separate team solely dedicated to HR analytics implementation. Also the users are used to reading operational reports rather than taking insights from a dashboard. So there's a gap when it comes to awareness.

- How did you get the support of top management?We got the full support of the management; this was not an issue at all.?
- Did you already have the technical expertise and resources to implement HR Analytics?

We tried to implement a BI solution first however that was not successful due to some technical issues. Also the external vendor could not understand the mappings required well. Then we went for a second solution which was more user friendly.

Interview 3

Introduction

- Could you please describe your current position in this organisation?
 I am a Business Analyst in HR based in the head office of our company.
 Currently I am the only member in the company to play the HR Analyst role.
- How long have you been working with HR Analytics?

We have been using analytics for about 4 years now.

• What was your interaction with HR Analytics implementation process?

I was recruited as an initial step of the HR Analytics implementation. The top management identified the "need" of Analytics to solve the problems the HR department had. I come from a Financial and Statistics background, therefore, after joining the (traditional) HR team, I was able to bring in my analytics knowledge and capabilities to support and improve the HR decision making process.

What are the factors that motivated you to start on the analytics journey?

Like any other company, we have long term strategic goals and these goals cascade down to individual employee goals and KPIs. We identified that the use of analytics in HR is essential to ensure that our resources are utilised in the optimal way and to monitor our progress towards these long-term goals.

On the other hand, we encounter daily issues that must be solved with the immediate support of HR Data. This again calls for a link between HR Data and the decision-making process.

Who initiated the concept of HR Analytics?

It came from the leadership (top management). They are actively trying to a create data driven culture within the company. The management expects us to have a proper justification behind everything we do and fulfil that requirement, we turn to data analytics. Plus, it's a "burning need" among employees as well. With the 1000+ workforce that we have, there's no way that we can address employee needs one on one.

Challenges

 What are the main challenges you faced while implementing HR Analytics? Accuracy and timeliness of Data: We had to spend lot of time and effort on the "data cleansing" part. Still we are working to improve our data credibility and validity. Consolidation of systems is also still in progress. We have been using these systems for a while but now there's a need to standardize across all systems.

Data availability and consistency: Sometimes when we were trying to solve a new problem, we realised that the data we collected previously is not in the format to solve the new problem. This leads to recollection of data.

Mindset: Changing the mindset of people is the next challenge. I see a clear link between this challenge, to the first challenge "Accuracy and timeliness of Data". Because if the people cannot "trust" the data to be accurate then, they will not use the data to make decisions.

Budgeting: Getting the budgets approved was also a challenge. Showing the ROI of training is the toughest. However, we managed to get the approval with the help of HRIS which shows the cost savings. Also pitching it at the right time is important.

How did the employees react to the change?

They embraced it positively in our case. They like the extra attention they get.

 Did you already have the professionals with the analytical skill set or how did you build on the analytical capabilities?

As I mentioned before, I was hired to fill in the analytics skill gap which was there. Other members in my team are traditional HR professional who do not have much knowledge about analytics. However, they understood the importance of analytics and the value it could bring to the HR function. Therefore, I receive their full support on this.

Application

• What methods/platforms/ software do you use to apply HR Analytics?

We use an HRIS and many other software. We often request customizations from our HRIS vendor to improve the system to meet our requirements.

Did you apply HR Analytics to all four areas of HR (Talent Acquisition, Training and Development, Performance Management, Employee Retention)?

I will explain this with a single scenario. When we have 1000+ employees we cannot invest in all of them equally. Therefore, we cluster our employees into high potential and low potential categories. This information is then used to plan training and development, performance management and employee retention activities.

Success and Future plans

Are you satisfied with the impact HR Analytics? Did you achieve your objectives?

No. We are not satisfied with the progress. We need to improve in many areas. At the moment, we are just prioritizing the most important problems. However, there are other problems that we can solve using HR Analytics. Also, the awareness about HR Analytics is still ongoing. I think everyone involved in our chain of work should understand the importance of data. For example, person entering the data into the system should understand that if the data is entered incorrectly it will lead to incorrect decisions. We need to standardise the process in a such a way that everyone uses the same language.

How would you access the HR Analytics Maturity of your organization? (Based on the given model)

It's difficult to choose a certain level because we don't apply HR analytics in all areas of work. We rather focus on solving the problems at hand and go to the extent we should, in order to solve those problems. I think generally we fall somewhere between operational reporting and advanced reporting.

Suggestions and Recommendations

 What are the best practices for the design, implementation and use of HR Analytics you would recommend to an organization starting on HR Analytics?

I think the best approach to use is the combination of gut feeling and data insights. You cannot completely depend on data. Also, the HR analytics implementation requires shifting the mindset of people. Finally, you must understand that the business has other priorities as well. You need to pitch it at the right time and the right way.

Interview 4

Introductory Questions

38. Could you please describe your current position in this organisation?

Yes, so our company owns a chain of supermarkets in Sri Lanka. We are one of the largest retail operators in the country. We have 90+ supermarkets around the country. We have about 3000 employees working for us now. I am the Head of Human Resources.

39. How long have you been working with HR Analytics?

HR analytics was implemented about 5 years ago however we revamped back in 2012 and introduced global practices into our systems. This helped us immensely when we moved to analytics because we had standardized practices in place.

Key Questions

Initiation

40. What are factors that motivated you to start on the analytics journey? Were you looking to solve a specific business problem or was it a reaction to competition and trend?

We are in a service-oriented business drive by a large workforce. Employees are the key to our success. However, a job in retail is physically demanding, shift based and has lot of downsides to it. In other words, it's not an attractive job to many. Lot of people who join us on temporary basis. Therefore, turnover was one of major issues we had. HR Analytics came into picture to solve problems like these.

Challenges

41. What are the main challenges you faced while implementing HR Analytics?

Integrating the systems:

Integrating the HR system with other systems in the organization was one of the key challenges we had. Our HR system ran in isolation. For example, to monitor the performance of the cashier and analyse the data against their demographic details and salaries required integration of POS system, Pay roll system and the HRIS system. We got the IT and automation divisions support for this. However, it was a time-consuming process which slowed our progress.

Skills and Knowledge: Finding the right talent for our HR Analytics team was a challenge. Analytics was quite new in Sri Lanka when we started and finding people with advanced statistical skills was difficult. Also, the people who did have the right analytics skills, did not have much knowledge or background about HR. So, in the beginning we formed an analytics team to work along with our traditional teams. The traditional HR team would specify the HR problem and the analytics team worked on a solution for that. We provided HR trainings to the analytics team and essential analytics training to the HR team. Now both the groups operate as on "HR Analytics" team.

However now there's so much talk going on about analytics and we see more analytics talent in the market. Fresh graduates joining as interns have studied HR Analytics in their courses. So, I think we are right on track.

Application

42. What methods/platforms/ software do you use to apply HR Analytics?

We have a workforce analytics tool that we developed internally and we also use a BI tool to develop dashboards.

43. Did you apply HR Analytics to all four areas of HR (Talent Acquisition, Training and Development, Performance Management, Employee Retention)?

Yes. We do apply analytics to all these areas. We have a model to predict the turnover of employees and we use that in workforce planning. We also monitor and compare the turnover rates of supermarkets in different locations. We have found some locations where the turnover is comparatively high. We plan our recruitments based on sales forecasts and turnover predictions because we recruitment employees according to the seasonal demands. Then we plan trainings for these employees, so they are all interconnected.

• Success and Future plans

44. Are you satisfied with the impact HR Analytics? Did you achieve your objectives?

I am satisfied with our progress however there are lot of areas we have not touched yet. I would like to see how trainings are improving the performance. We have an online platform where we provide them courses to advance professionally. I would like link this to their performance management. This way we will be able to predict a person's career advancement and identify high potential employees.

45. How would you access the HR Analytics Maturity of your organization? (Based on the given model)

I think we are in the predictive analytics phase however that doesn't mean we have applied predictive analytics to everything. I think it's more accurate to say that we are in the transition stage from advanced analytics to Predictive analytics.

46. Are data used to drive decisions within the company, or do questions about the data quality and timeliness limit its usefulness?

We have always been big on automation. We have a separate automation team who keeps replacing all the manual work with software. We don't have any paperwork. We store all data in systems. So we had some good quality data to start with however we did perform a data cleansing part before moving on with analytics. We also highlighted to our employees the importance of entering accurate information.

Suggestions and Recommendations

47. Can you please share some lessons learned during the phases of design, implementation and use of HR analytics?

Don't wait for the perfect candidate to recruit for your HR Analytics team because I think analytics is still new to Sri Lanka. Hire candidates who partially meet your criteria and provide them with trainings to fill the knowledge and skill gaps. Personally, I observed that it is easier to teach HR to an analytics professional rather than trying to teach analytics to a HR professional. HR is no longer a support function. HR now has "a seat at the table" as the saying goes.

System integration can take a long time so make sure you allocate enough time for that. It's important to integrate all these systems no matter how challenging it is. HR system in isolation cannot provide you any valuable insights. Plus, you won't be able to show how your effort in HR contributes to the overall strategic goals without system integration in place.

Interview 5

Introductory Questions

- 48. Could you please describe your current position in this organisation?

 Basically HR is the foundation of the company (Bank), where it involves in recruitment, introducing workplace to the employee, managing the performance, enhancing the performance, learning the employees through trainings, managing the employee benefits and rewarding till the employee leaves the company.
- 49. How would you define HR Analytics?

 Presenting the ROI or stats of HR functions in terms of figures to the management. This where it changes the opinion of HR is a cost centre to HR aids in uplifting the profits of the company through supporting all the core areas of the company through clear processes.
- 50. How long have you been working with HR Analytics?
 We use analytics in main key units of HR such as resourcing, Operations,
 Training & Development and Employee Relations in order to show the
 achievement of HR plan which is derived from company business plan over past years.
- 51. What is your interaction with HR Analytics implementation process?

 In relation to Training and Development I deal with generating monthly T & D stats and we use these data to plan future training programs. Also we use the analytics to achieve our annual training hours target for employees. We do not have a separate unit to handle HR analytics, but these are embedded in main key units of HR. We keep on using and finding more analytics where implementation was done few years back.

Key Questions

Initiation

52. What are factors that motivated you to start on the analytics journey? Were you looking to solve a specific business problem or was it a reaction to competition and trend?

Basically we are focusing more on growth and expanding we do understand the importance of analytics in order to meet the critical business requirements hence HR being the foundation of the company. HR is involved in strategic planning of the company. Under these circumstances HR realizes the importance of analytics.

- 53. Who initiated the idea of HR analytics? Top management, HR department or any other department?This is basically because of the HR plan which is derived from the business plan. In order to meet the business requirements raised through top management, HR department has initiated the journey of analytics.
- 54. How ready was your organization to start on the analytics journey?

 Still the company is not using highly advanced analytics. But HR department has skilled employees to focus on analytics. Also they provide trainings to the HR department employees on HR analytics. Similarly other department staff who are well equipped with business analytics get involved in helping HR to use more analytics in terms of technical knowledge.

Challenges

- 55. What are the main challenges you faced while implementing HR Analytics?
 - There seems to be a major knowledge gaps among old senior employees in terms of new technology.
 - Some HR functions are very difficult to turns into measurable.
 - ➤ Depending on the answer to question 8, some of the questions from the additional questions section will be discussed.

Application

56. What methods/platforms/ software do you use to apply HR Analytics?

Majorly Advanced Excel techniques and macros

57. Did you apply HR Analytics to all four areas of HR (Talent Acquisition, Training and Development, Performance Management, Employee Retention)?

Yes we do

58. Is there a team dedicated to HR Analytics implementation?
No, this is embedded within major 5 areas of HR such as resourcing, T & D,
Operations, Employee relations and employee engagement. In unit has delegated people to focus on analytics.

• Success and Future plans

59. Are you satisfied with the impact HR Analytics? Did you achieve your objectives?

Yes, but could be utilize more.

60. How would you access the HR Analytics Maturity of your organization? (Based on the given model)

Level 2

61. What are the future plans of your organization with HR Analytics?

With migration to new HRIS system and eLearning system, we could use more technology in terms of generating analytics to support business strategy.

• Suggestions and Recommendations

- 62. Can you please share some lessons learned during the phases of design, implementation and use of HR analytics?
 - Lack of knowledge in advanced analytics among HR employees retards the productivity.
 - Some areas are difficult to convert into figures which requires thorough reviewing and redesigning of processes.
- 63. What are the best practices for the design, implementation and use of HR Analytics you would recommend to an organization starting on HR Analytics?

First and foremost, all HR processes should be reviewed thoroughly and manual effort required unnecessary processes should be redesigned accordingly so as to generate advanced analytics.

Closing questions

64. Before we conclude the interview, is there anything that you would like to add that we have not yet had the chance to discuss?

In my opinion HR analytics should be embedded within the key areas of HR except delegating it for a separate team. This would be much effective and everyone in HR will be aware of HR analytics.