The Impact of Environmental Factors on Organizational Adoption of Human Resource Analytics in Sri Lankan Large-Scale Apparel Companies

By K. M. Hettiarachchi, H. M. S. D. Bandara, M. C. G. Amarasinghe, U. S. Sirigampola & C. L. Kuruppu

Abstract - This study focuses on investigating the impact of environmental factors on organizational level of adoption to Human Resource Analytics in Sri Lankan apparel companies. Four variables were considered to develop the conceptual model under environmental factors impacting the adoption of Human Resource Analytics performed in prior studies. The sample consists with 210 Human Resource professionals which were taken based on nine out of thirteen key apparel companies in Sri Lanka. The findings revealed that the environmental factors and the organizational level of adoption have a positive relationship. The results indicated that the environmental factors lead to a strong positive impact on the organizational level of adoption.

Keywords: human resources analytics, organizational adoption, environmental factors, data availability, fear appeals, social influence, tool availability.

GJMBR-A Classification: JEL Code: O15
The Impact of Environmental Factors on Organizational Adoption of Human Resource Analytics in Sri Lankan Large-Scale Apparel Companies

K. M. Hetiarachchi, H. M. S. D. Bandara, M. C. G. Amarasinghe, U. S. Sirigampola & C. L. Kuruppu

Abstract: This study focuses on investigating the impact of environmental factors on organizational level of adoption to Human Resource Analytics in Sri Lankan apparel companies. Four variables were considered to develop the conceptual model under environmental factors impacting the adoption of Human Resource Analytics performed in prior studies. The sample consists with 210 Human Resource professionals which were taken based on nine out of thirteen key apparel companies in Sri Lanka. The findings revealed that the environmental factors and the organizational level of adoption have a positive relationship. The results indicated that the environmental factors lead to a strong positive impact on the organizational level of adoption. Furthermore, the impact of behavioural factors on the adoption of Human Resource Analytics to the organizations and the individual adoption of Human Resource professionals based on the Human Resource Analytics in Sri Lankan context can be recommended for future studies.

Keywords: human resources analytics, organizational adoption, environmental factors, data availability, fear appeals, social influence, tool availability.

I. Introduction

a) Background of the Study

Human Resources are any individual who is able to commit their expertise, labor, time with the anticipation of compensation or reward with the intention of strengthening and reinforcing organizational performance and success (Heathfield, 2020). At the period of Industrial Revolution (1750-1850), where the transition of economy from the agricultural sector to industrial sector took place, the requirement of managing workforce has arisen with the setting up of the employees’ wages, welfare and other issues (Khanduja, 2012). Then, with the post-industrial revolution itself, the concept of Human Resource Management had been paid a massive attention where experiments and studies were conducted which gave a new prominence to the Human Resource Management (Khanduja, 2012). Over the period, along with the rapid progression of the technology, Human Resource Management itself had a tendency to rather concentrate on the concept of Human Resource Analytics to strengthen organizational performance than it operated and currently operates since in present scenario, it has grown to be a concurrent phenomenon. Further, according to Kumar and Lochab (2018), data related to the every aspect of employees in the organization must be well examined and analyzed to make effective decisions concerning the issues related to employees.

In the present study, Apparel Sector has become one of the significant contributors on Sri Lankan economy further known as Gross Domestic Production. With the induction of socio-oriented open economy implemented in 1977 the effect of industrial sector contained apparel sector had took place over the effect of agricultural sector to Gross Domestic Production in Sri Lanka (Lakshman and Tisdell, 2000). According to the data gathered by annual report (2014) of Central Bank of Sri Lanka, industrial sector has impacted with 32% to the national economy which is the second largest contributor (Embuldeniya, 2018). Furthermore, as noted by Embuldeniya (2018), the significant expansion of 11.4% has been recorded by the industrial sector in relation to 2013 which is 9.9%. According to the past studies it was revealed that there had been limited research conducted around the globe in relation to the adoption of Human Resource Analytics among organizations. Nevertheless, it has not been completed a study on investigating the impact of environmental factors on the Organizational Level of Adoption to Human Resource Analytics in large-scale apparel companies in Sri Lanka.

b) Problem Statement

Human Resource Analytics has become an important aspect in the dynamic business environment. Many scholars have centered on the evolution of Human Resource over the decades. Human Resource Analytics was found to be an appropriate and more practical use of the Human Resource component of technological developments in order to guide companies to achieve a competitive advantage. According to Uri Gal et al.
(2017), in order to manage people through analytics, Human Resource Analytics can be used as a data driven strategy. As per the information sources Volini et al. (2017), of the Global Human capital trends suggested that majority of the firms wants to consider that adoption of Human Resource Analytics is a major concern, which is around 71%. However, the improvement of Human Resource Analytics adoption has been in a lesser rate. Globally, around 23% of the corporations has commonly embraced Human Resource Analytics into organizational level, whereas mainstream has been unsuccessful in adopting Human Resource Analytics into organizational level. Boudreau (2017), states in Harvard Business Review that, for the development of almost every organization, Human Resource related information is essential factor. In previous studies conducted among Asian and European countries, dynamic forces that affect the individual adoption level into Human Resource Analytics have been established, despite the fact that impact of environmental factors on Organizational Level of Adoption to Human Resource Analytics is scarcely ingested. It was also highlighted the flaws of Human Resource practitioners while adopting into Human Resource Analytics, whereas Human Resource is widely acknowledge as a “Cost Focus Strategy” (Rafter, 2013). Conversely, contained by the Sri Lankan perspective, the utilization of analytics is still at a preliminary phase (Jayasundara, 2019). Industrial expertise views propose that Human Resource Analytics was implemented nearly five years ago into Sri Lankan corporate sector, nevertheless the adoption of analytics into Human Resource is at a lower point. Keerthi and Reddy (2018), have emphasized that the impact of certain variables has caused in lack of Human Resource Analytics adoption. Consequently, the impacts of the environmental factors upon the Organizational Level of Adoption to Human Resource Analytics are however considered as limited among the Sri Lankan firms. Although, the empirical gap has been identified, a lesser amount of studies were established in the Sri Lankan perspective, that embraces problem statement for this research work. To be more specific concerning the problem, this study centered upon large-scale apparel sector, that has been the “second – largest” demand contributor in to Sri Lankan Gross Domestic Product. Thus, a query emerges “Whether there is an impact of environmental factors on Organizational Level of Adoption on Human Resource Analytics within Sri Lankan large-scale apparel companies? Besides, “What is the extent of impact of enviromental factors on Human Resource Analytics?”.  

c) Scope of the Study

The scope of the study will be the influence of environmental variables on the organizational adoption of Human Resource Analytics among large-scale apparel companies in Sri Lanka. Samples from nine selected apparel firms were taken according to the Export Development Board report. Thus, by providing an insight into the future of Human Resource Analytics in the context of Sri Lanka, researchers will focus on making a modest contribution to the understanding of Human Resource Analytics. Toward the end of this study, large-scale apparel firms will be able to establish the necessary policies for incorporating the Human Resource Analytics into their organizations.

d) Significance of the Study

The latest age of Human Resource Management is Human Resource Analytics. In order to obtain and maintain a competitive advantage, this research enables large-scale Sri Lankan apparel companies to improve operational execution. The main reasons for obtaining benefits are to make the modest contribution to understanding Human Resource Analytics by giving a brief insight into the fate of Human Resource Analytics in Sri Lanka. This research enables all companies to realize Human Resource Analytics’s usefulness. Human Resource Analytics helps to increase the return on investment and boost workers’ productivity. Each association must have analytical processes to establish a superior workplace. After doing this study, large-scale apparel companies will be able to set up the necessary policies to integrate the Human Resource Analytics into their organizations. Getting a good vision can steer workers in the right direction and help to convey leadership and employee viewpoints from management. Furthermore, policy decisions often lead to the rules and procedures that apply to all employees being specified.

As indicated by Van den Heuvel and Bondarouk (2017), Human Resource Analytics will affect dynamic in relationship in the coming years. In addition, Human Resource Analytics would likely influence Human Resource Management’s synthesis and function as a capability. It will help to ensure lean and dexterous organizational structures that rely on an ideal combination of the qualities and abilities of individuals from one point of view and emphasis on the other. Human Resource Analytics can potentially alter authoritative models in this manner.

e) Objectives of the Study

Following General objective and Sub objectives were developed for this study.

f) General Objective

To investigate the impact of environmental factors on the Organizational Level of Adoption to Human Resource Analytics among large-scale apparel companies in Sri Lanka.

g) Sub Objectives

1. To determine the impact of Data Availability on the Organizational Level of Adoption to Human Resource Analytics.
2. To determine the impact of Fear Appeals on the Organizational Level of Adoption to Human Resource Analytics.
3. To determine the impact of Social Influence on the Organizational Level of Adoption to Human Resource Analytics.
4. To determine the impact of Tool Availability on the Organizational Level of Adoption to Human Resource Analytics.

II. Literature Review

The prior literatures revealed that the adoption of Human Resource Analytics is at a lower level and a lesser number of research and certain studies conducted have paid attention on organizational adoption to Human Resource Analytics.

a) Factors of Organizational Adoption

It is a necessity to analyze the variables which impact on the acceptance of an invention to ascertain factors impacting to innovation adoption. Rogers (1983), states that innovation adoption is a stagnant procedure and the pace at that diffusion of innovation causes to be a requirement for individuals or organizations combined with innovation adoption. According to Pillans and Levenson (2017), that 69% of the organizations are comprising of approximately ten thousand workers or have a Human Resource team, on the basis of recent studies performed by the Corporate Research Forum. Accordingly, a study conducted by MIT and IBM confirmed that the firms had 8% growth in sales, 24% growth in net operating income and 55% higher sales per employee was earned with the adoption of Human Resource Analytics into strategic level of the firms (Barman and Choudhury, 2016). In current scenario, there is further considerable drive aimed at Human Resource professionals on adopting and utilizing analytics in order to alter themselves to the organizational process and economic part of the company (Fitz-Enz, 1995). Convincingly, this study paid attention on the environment factors impacting on the Organizational Level of Adoption which be; Fear Appeals (Johnston, 2006), Social Influence of (Johnston and Warkentin, 2010), Tool Availability (Johnston, 2006) and Data Availability (Johnston, 2006). The impact of above variables under environmental factors to Human Resource Analytics adoption into organizational level is discussed in this study.

b) Data Availability

The administrative process of Human Resource can be classified as detailing metrics, filling available positions, recruitment expenses and submitting other important paperwork (Manyika et al., 2011). It is not that easy to obtain information from different heads of departments and it is a cost to the company to buy or share data by outsourcing. According to Gale (2012), various platforms have been used by organizations to store information. Hence, a trouble tends to occur towards Human Resource experts in order to get an overview about differences and similarities of the data sets. The value of recruiting and retaining top talent is acknowledged by highly effective organizations. According to CIPD (2013), the nature of data retained by Human Resource groups fulfills various requirements on mobility requirements across different departments of the organization. Organizations which do not integrate all data due to confidentiality of data and those needs to be extra secured. Furthermore, handling and knowing the purposes of data is another essential feature (Cappelli, 2017).

c) Fear Appeals

Data Analysts need to consider mathematical metrics such as analytical thinking; though, these skills have not yet been acquired by an exceptional dominant part of Human Resource experts, leaving organizations with the preference of realizing individuals with such expertise. Fear Appeals can be conveyed through formal or informal discussion by corporate leaders, technical leaders and trustworthy colleagues (Johnston, 2006). Accordingly, to past literature, social influence refers to the level of influence made by a social group to an individual’s behaviors in adopting into an innovation (Talukder and Quazi, 2011). This states that how people are changing their behaviors, in order to address the socio-cultural expectations. Furthermore, Venkatesh et al. (2003), suggests that “the level which an individual sees that others consider that the individual should utilize the new framework” which functions to utilize an innovation or practice as a determinant of behavioral intent. An individual’s adoption growth has a possibility to get converted into dynamic, in advance of individual considers that acquiring will be productive (Frambach and Schillewaert, 2002). Conversely, scholars has identified that unless the attitudes of an individual’s remain unfavorable towards an innovation adoption, that individual may oppose the adoption (Jeyaraj and Sabherwal 2008). Social Influence can be clearly seen
within cooperate level. Where majority of the people get influenced not due to the advantages or perhaps the utility of the adopted novelty nevertheless due to the peer pressure (Talukder, 2012). This was demonstrated through an observational study where respondents reported that their desires on certain adoption innovations were focused on Social Influence. This study was measured under two factors which are “People who are important to me think that I should use the system” and “People who impacts upon my behaviors, thinks that I should use the framework”. These measures define that individual perception regarding the Social Influence.

e) Tool Availability

Johnston (2006), denotes that the amount of resources (tools) applied to up-to-date applications and systems, as well as the required collection of skills, acceptability, degree of power and influence, known as the Tool Availability. Mostly with emergence of new technology, people have access to huge storage systems and smoother wireless networks which leads to quicker storing of data and improved functioning. While there is a substantial role for the devices and applications, scholars suggest that to classification of data, analysis, evaluate and interpretation of data for reporting and decision-making purposes, it is a critical factor to provide people with a relevant range of skills (Carlson and Kavanagh, 2011). This shows that people with the requisite set of skills are required to use analytics more significantly, besides the equipment and networks. Therefore, according to Behzad (2013), scarcity of appropriate systems, tools and people with expertise skills related to Human Resource and analytical experience has remained a concern impacting Organizational Level of Adoption into Human Resource Analytics. Estimations of past years which was made by the scholars states that there has been surplus of over 140,000 qualified analysts and the need for individuals who are possessed with “solid analytical abilities” for the Human Resource sector (Brown, Michael et al., 2011). Which strongly confirms the fact that tool availability has an impact on the individual level along with the Organizational Level of Adoption in to Human Resource Analytics. Manyika, et al. (2011), states that to make efficient decisions to achieve overall objectives, organizations must consider Human Resource Analytics as a critical adoption, besides in order to reduce the confusions and disputes, it is a perfect strategy for an organization not to have several distinct applications.

f) Organizational Level of Adoption

Adoption is characterized as the mechanism by which an invention is adopted by a person or organization, while diffusion describes the degree of accumulation of an innovation by consumers (Rogers, 1995). Furthermore, it has been known that the degree of acceptance and innovation is based on two decisions. “The decision of an organization to adopt an innovation and the decision to use a revolution by a person within an organization” (Frambach and Schillewaert, 2002). In the current scenario, analytics has always been a popular trend in every part of the company, and Human Resource is not far behind the Human Resource organizations’ metrics or analytics that go not only with people but with processes such as hiring, retention, rewards, training and growth (Barman and Choudhury, 2016). While companies are strongly convinced that their growth period is Analytics (Keerthi and Reddy, 2018).

Moreover, hierarchical degree of appropriation of an advancement or creation is examined that it is basic for the turn of events, increment efficiency, gotten serious and in any event, for the perseverance in a practical market (Arpaci et al., 2012). This clarifies the essence of introducing an innovation at the corporate level. Implementing Human Resource Analytics at the organizational level is very important in this report when dealing with Human Resource problems. Previous literature indicates that the rapid rise in current Human Resource data and the strong evidence that Human Resource and talent management has been advanced by the analysis of these data, leading to sound organizational results (Boudreau, 2017). Furthermore, the study noticed that the organizational level of adoption into an innovation or Human Resource framework is intensely influenced by hierarchical status, which alludes to level of financial capital available, the shortage of specialized sources inside an association for the appropriation of Human Resource development (e.g., mechanical skill, foundation and essential frameworks) while the writing offers proof that the authoritative degree of Human Resource Analytics reception level relies upon a few variables of activities and climate.
According to the Figure 1 the key independent variables tested in this study are ‘Environmental Factors’ which are ‘Data Availability’, ‘Fear Appeals’, ‘Social Influence’, ‘Tool Availability’. The scales were constructed by referring prior studies and justified in order to adopt to the Sri Lankan context. ‘Organizational Level of Adoption’ to ‘Human Resource Analytics’ is the dependent variable for this study and is measured by the scales constructed by prior researchers. Further, the theory suggests that environmental factors along with Data Availability, Fear Appeals, Social Influence and Tool Availability have a significant impact on the Organizational Level of Adoption to Human Resource Analytics.

Thus, the following hypotheses can be developed for the study,

H1: The environmental factors have significant impact on the Organizational Level of Adoption to Human Resource Analytics.

H2: Data Availability has a significant impact on the Organizational Level of Adoption to Human Resource Analytics.

H3: Fear Appeals has a significant impact on the Organizational Level of Adoption to Human Resource Analytics.

H4: Social Influence has a significant impact on the Organizational Level of Adoption to Human Resource Analytics.

H5: Tool Availability has a significant impact on the Organizational Level of Adoption to Human Resource Analytics.

III. Methodology

The study was conducted employing the deductive approach since the study was built on the basis of existing theories to be assessing the impact of environmental factors on organizational adoption of Human Resource Analytics in large-scale apparel companies in Sri Lanka. Data was collected particularly based on primary data. The quantitative approach was applied in the study since the survey was adopted as the research strategy while, a structured questionnaire be served as the main instrument. The questionnaire was created in a way of consisting all the four environmental constructs considered together with demographical profile of sample obtained to the study. Seven-point Likert scale was employed to distinguish the chosen option by the respondent and furthermore, the reliability and the validity of the constructs were analyzed by the use of a pilot study where the results obtained to be reliable with Cronbach’s alpha which have been 0.960. The sample population of the study contained with Human Resource professionals who be in the designation of executive & above being employed in the area of Human Resource, depreciating their companies to be large-scale apparel companies in Sri Lanka. For the objective of study, nine out of thirteen key leading apparel companies in Sri Lanka were selected in accordance with the report of (Export Development Board, 2020). According to Krejcie and Morgan (1970), the sample was obtained as two hundred and ten respondents which gets specified as executive & above being employed in the area of Human Resource,
irrespective of the role, job title, and the time period consumed within the department of Human Resource. The sample of companies have been chosen via the probability sampling method viz. cluster sampling method. When cluster sampling be considered, the population was divided into separate groups termed clusters. Then with the usage of simple random sampling, clusters were chosen from the population. Furthermore, the techniques which had been employed achieving in objectives were descriptive statistics, correlation analysis and regression analysis while, the tool had been used for analysis at arriving results and interpretation was SPSS version 25.

**IV. Analysis and Discussion**

a) *Descriptive Analysis*

The demographic profile of Human Resource professionals from the selected sample is shown in the Table 1. In relation to gender, most respondents were female which is 62.86% and the age of most Human Resource professionals ranged from 20-30, comprising the highest value which is 67.1% of the respondents. Majority of respondents possessed a bachelor’s degree comprising 78.1% of the sample while the least percentage of respondents have other professional qualifications which is 1.9% when evaluating the educational level of respondents.

**Table 1: Descriptive summary of Human Resource executive level and above professionals**

| Gender         | Frequency (N) | Percentage (%) |
|----------------|---------------|----------------|
| Male           | 78            | 37.14          |
| Female         | 132           | 62.86          |
| Age 20-30      | 141           | 67.1           |
| Age 31-40      | 66            | 31.4           |
| Age 41-50      | 3             | 1.4            |
| Education      |               |                |
| Bachelor’s Degree | 164     | 78.1           |
| Master’s Degree | 42          | 20             |
| Other          | 4             | 1.90           |


b) *Pearson Correlation Coefficient*

The Pearson correlation has been applied to evaluate whether there is a significant relationship between the variables as stated in the conceptual framework.

**Table 2: Correlations of Environmental factors and organizational level of adoption to Human Resource Analytics**

| Correlations | DA     | TA     | FA     | SI     | OLA    |
|--------------|--------|--------|--------|--------|--------|
| Pearson Correlation | 1     | .800**| .781**| .739**| .829**|
| Sig. (2-tailed)     | .000  | .000  | .000  | .000  | .000  |
| N                | 210   | 210   | 210   | 210   | 210   |
| Pearson Correlation | .800**| 1     | .706**| .751**| .714**|
| Sig. (2-tailed)     | .000  | .000  | .000  | .000  | .000  |
| N                | 210   | 210   | 210   | 210   | 210   |
| Pearson Correlation | .781**| .706**| 1     | .746**| .742**|
| Sig. (2-tailed)     | .000  | .000  | .000  | .000  | .000  |
| N                | 210   | 210   | 210   | 210   | 210   |
| Pearson Correlation | .739**| .751**| .746**| 1     | .714**|
| Sig. (2-tailed)     | .000  | .000  | .000  | .000  | .000  |
| N                | 210   | 210   | 210   | 210   | 210   |
| Pearson Correlation | .829**| .714**| .742**| .714**| 1     |
| Sig. (2-tailed)     | .000  | .000  | .000  | .000  | .000  |
| N                | 210   | 210   | 210   | 210   | 210   |

**.** Correlation is significant at the 0.05 level (2-tailed).

According to the Table 2, there is a very strong positive correlation of 0.829 between the independent variable and the dependent variable Organizational Level of Adoption at a significant level of 0.01. This shows that it mostly precedes the adoption of Human Resource Analytics in the organization when there is a higher Data Availability among Human Resource professionals. When considering the variable Tool Availability, there is a strong positive correlation of 0.714 between Tool Availability and Organizational Level of
Adoption at the significant level of 0.01. This indicates that Tool Availability among Human Resource professionals leads to the adoption of Human Resource Analytics in the organization. Furthermore, there is a strong positive correlation between Fear Appeals and Organizational Level of Adoption of 0.742 which is at a significant level of 0.01. This depicts that when the Fear Appeals of an individual is higher, it contributes to the adoption of Human Resource Analytics in the organization. Social Influence and Organizational Level of Adoption also having a strong positive correlation of 0.714, representing the of Social Influence among Human Resource professionals linked to the adoption of Human Resource Analytics in selected organizations. Consequently, the relationship between Data Availability and Organizational Level of Adoption is the strongest out of other factors.

c) Regression Analysis

This section of the study offers a wider and more in-depth overview based on the previous sections of prevailing impacts from Environmental factors to the dependent variable Organizational Level of Adoption to Human Resource Analytics. The impact of independent variables was determined by the linear regression model on the dependent variable. Multiple regression models were used to explain how the variance in independent variables reflects the variance in the impact of the dependent variable.

H1: Impact of Environmental factors on the Organizational level of adoption to Human Resource Analytics

Table 3: Model Summary

| Model   | R       | R Square | Adjusted R Square | Std. Error of the Estimate |
|---------|---------|----------|-------------------|---------------------------|
| 1       | .843a   | .710     | .700              | .454                      |

a. Predictors: (Constant), Fear Appeals, Tool Availability, Social Influence, Data Availability

According to Table 3, the value of Adjusted R Square=0.700, which determines 70% of the Organizational Level of Adoption to Human Resource Analytics variance. It is explained by the predictor variables Fear Appeals, Tool Availability, Social Influence and Data Availability.

Table 4: Anova

| Model   | Sum of Squares | df | Mean Square | F       | Sig. |
|---------|----------------|----|-------------|---------|------|
| Regression | 55.048         | 4  | 13.762     | 69.054  | .000b |
| Residual  | 22.919         | 115 | .199       |         |      |
| Total    | 77.967         | 119 |            |         |      |

a. Dependent Variable: Organizational Level of Adoption
b. Predictors: (Constant), Fear Appeals, Tool Availability, Social Influence, Data Availability

The above Table 4 shows whether the environmental factors have a substantial impact on the dependent variable. Consequently, the significance value is less than 0.05, which is 0.000 and it determines that there is a significant variance between environmental factors and the Organizational Level of Adoption. This suggests that the Organizational Level of Adoption to Human Resource Analytics depends on the mindset of the Human Resource executive level and above practitioners towards the environmental variables. Therefore, the Null Hypothesis should be denied.

Table 5: Coefficients

| Model | Unstandardized Coefficients | Standardized Coefficients | t     | Sig. |
|-------|-----------------------------|---------------------------|-------|------|
|       | B   | Std. Error | Beta |       |      |
| 1 (Constant) | .363 | .261 |     | 1.388 | .168 |
| SI    | .110 | .081 | .120 | 1.368 | .174 |
| TA    | .166 | .097 | .171 | 1.715 | .089 |
| DA    | .450 | .108 | .454 | 4.163 | .000 |
| FA    | .184 | .095 | .163 | 1.925 | .057 |

a. Dependent Variable: Organizational Level of Adoption

The above Table 5 displays, the predictor / independent coefficient of variables, which are Fear Appeals, Tool Availability, Social Influence and Data Availability factors. The first hypothesis (H1) was to examine whether environmental variables had a significant impact on Organizational Level of Adoption to Human Resource Analytics. For environmental variables, the significant value is 0.111, 0.029, 0.000, 0.057, which is less than 0.05. By accepting H1, the environmental factors are influenced by Organizational Level of
Adoption or Organizational Level of Adoption is depending on the attitudes of the Human Resource professionals towards the Fear Appeals, Tool Availability, Social Influence and Data Availability. According to the above table, unstandardized coefficient has been considered because the data that has taken from a standard scale and resulted in $B_1 = 0.131$, $B_2 = 0.202$, $B_3 = 0.407$ and $B_4 = 0.184$. This demonstrates, when the Social Influence increases by one unit, the Organizational Level of Adoption to Human Resource Analytics expected to extend by 0.131 units, when the Tool Availability increases by one unit, the Organizational Level of Adoption expected to extend by 0.202 units, and when the Data Availability increases by one unit, the Organizational Level of Adoption expected to extend by 0.407 units and when Fear Appeals increases by one unit, 0.184 units from the Organizational Level of Adoption expected to extend. Therefore, Data Availability features a more impact on Organizational Level of Adoption to Human Resource Analytics.

$H_2$: Impact of Data Availability on the organizational level of adoption to Human Resource Analytics

Table 6: Model Summary

| Model | R   | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-----|----------|-------------------|---------------------------|
| 1     | .817$^a$ | .668     | .665             | .468                     |

a. Predictors: (Constant), Data Availability

According to Table 6, the value of Adjusted R Square = 0.665, which determines 66.5% of the Organizational Level of Adoption to Human Resource Analytics variance. It is explained by the predictor variable Data Availability.

Table 7: Anova

| Model   | Sum of Squares | df | Mean Square | F       | Sig. |
|---------|----------------|----|-------------|---------|------|
| Regression | 52.081           | 1  | 52.081      | 237.412 | .000$^b$ |
| Residual | 25.886           | 118| .219        |         |      |
| Total   | 77.967           | 119|             |         |      |

a. Dependent Variable: Organizational Level of Adoption
b. Predictors: (Constant), Data Availability

Table 7 shows, whether the Data Availability has a major impact on the dependent variable. Consequently, the significance value is less than 0.05, which is 0.000 ($0.000 < 0.05$), and it specifies that the difference between Data Availability and Organizational Level of Adoption is significant. This signifies the Organizational Level of Adoption to Human Resource Analytics is relying upon the Data Availability of Human Resource experts. Hence, it is possible to reject the Null Hypothesis.

Table 8: Coefficients

| Model     | Unstandardized Coefficients | Standardized Coefficients | T     | Sig. |
|-----------|-----------------------------|--------------------------|-------|------|
|           | B              | Std. Error | Beta |       |     |
| 1 (Constant) | .791           | .233        |      | 3.399 | .001|
| DA Mean   | .809           | .052        | .817 | 15.408| .000|

a. Dependent Variable: Organizational Level of Adoption

The above Table 8 shows the coefficient of predictor/independent variable Data Availability. The second hypothesis ($H_2$) was to check whether Data Availability has significant impact on the Organizational Level of Adoption to Human Resource Analytics. The significance value for Data Availability is 0.000 which is a smaller amount than 0.05. Thus, accepting $H_2$ reveals that the Data Availability impacted on Organizational Level of Adoption which the Organizational Level of Adoption is reckoning on the Data Availability towards the Human Resource Professionals. Consistent with the Table 8, unstandardized coefficient has been considered because the data that has taken from a standard scale and resulted in $B_1 = 0.809$. That means when the Data Availability increases by one unit, the Organizational Level of Adoption expected to extend by 0.809 units.

$H_3$: Impact of Fear Appeals on the Organizational Level of Adoption to Human Resource Analytics
Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|---|----------|-------------------|---------------------------|
| 1     | .724a | .524 | .520 | .561 |

a. Predictors: (Constant), Fear Appeals

According to Table 9, the value of Adjusted R Square = 0.520, which determines 52.4% of the Organizational Level of Adoption to Human Resource Analytics variance. It is explained by the predictor variable Fear Appeals.

ANOVA

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|-------|----------------|----|-------------|---|-----|
| Regression | 40.842 | 1 | 40.842 | 129.813 | .000b |
| Residual | 37.125 | 118 | .315 | | |
| Total | 77.967 | 119 | | | |

a. Dependent Variable: Organizational Level of Adoption
b. Predictors: (Constant), Fear Appeals

Table 10 shows whether the Fear Appeals has a major impact on the dependent variable. Consequently, the significance value is less than 0.05, which is 0.000 (0.000 < 0.05) and it determines that between Fear Appeals and Organizational Level of Adoption there is a significant variance. This means that the Organizational Level of Adoption to Human Resource Analytics depends on the attitudes towards Fear Appeals of Human Resource executive level and above professionals. Thus, it is possible to reject the Null Hypothesis.

Coefficients

| Model | Unstandardized Coefficients | Standardized Coefficients | T | Sig. |
|-------|-----------------------------|---------------------------|---|-----|
| B     | Std. Error | Beta |       |     |
| 1 (Constant) | .688 | .323 | | |
| FA Mean | .812 | .071 | .724 | 11.394 | .000 |

Dependent Variable: Organizational Level of Adoption

The above Table 11 shows, the coefficient of predictor/independent variable Fear Appeals. The third hypothesis (H3) was to check whether Fear Appeals has significant impact on the Organizational Level of Adoption to Human Resource Analytics. The significance value for Fear Appeals is 0.000 which is a smaller amount than 0.05. Thus, accepting H3 reveals that the Fear Appeals impacted on Organizational Level of Adoption which the Organizational Level of Adoption is looking on the Human Resource Professionals' attitudes towards the Fear Appeals. Consistent with the Table 11, unstandardized coefficient has been considered because the data that has taken from a typical scale and resulted in B1= 0.812. This means when the Fear Appeals increases by one unit, the Organizational Level of Adoption expected to extend by 0.812 units.

H₄: Impact of Social Influence on the organizational level of adoption to Human Resource Analytics

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|---|----------|-------------------|---------------------------|
| 1     | .720a | .518 | .514 | .564 |

a. Predictors: (Constant), Social Influence

According to table 12, the value of Adjusted R Square = 0.514, which determines 51.4% of the Organizational Level of Adoption to Human Resource Analytics variance. It is explained by the predictor variable Social Influence.
Table 13: ANOVA

| Model          | Sum of Squares | df | Mean Square | F        | Sig.  |
|----------------|----------------|----|-------------|----------|-------|
| Regression     | 40.416         | 1  | 40.416      | 127.003  | .000  |
| Residual       | 37.551         | 118| .318        |          |       |
| Total          | 77.967         | 119|             |          |       |

a. Dependent Variable: Organizational Level of Adoption
b. Predictors: (Constant), Social Influence

Table 13 indicates whether the predictor variable Social Influence has a major impact on the dependent variable Organizational Level of Adoption. The significance value is also less than 0.05, which is 0.000 (0.000 < 0.05), and it determines that there is a substantial difference between the SI and the Organizational Level of Adoption to Human Resource Analytics. That means Organizational Level of Adoption to Human Resource Analytics depends on the mindset and capacity of the Human Resource executive level towards the Social Influence of Human Resource executive level and above professionals. Hence, it is possible to reject the Null Hypothesis.

Table 14: Coefficients

| Model          | Unstandardized Coefficients | Standardized Coefficients | T       | Sig.  |
|----------------|-----------------------------|---------------------------|---------|-------|
|                | B   | Std. Error | Beta        |         |       |
| 1 (Constant)   | 1.575| .249      | .720        | 6.334   | .000  |
| SI Mean        | .663| .059      |             | 11.270  | .000  |

a. Dependent Variable: Organizational Level of Adoption

The above Table 14 shows, the coefficient of predictor/independent variable Social Influence. The fourth hypothesis (H4) was to check whether Social Influence has significant impact on the Organizational Level of Adoption to Human Resource Analytics. The significant value for Social Influence is 0.000 which is a smaller amount than 0.05. Therefore, by accepting H4 reveals that the Social Influence impacted on Organizational Level of Adoption which the Organizational Level of Adoption is counting on the Human Resource Professionals’ attitudes towards the Social Influence. According to the Table 14, unstandardized coefficient has been considered because the data that has taken from a standard scale and resulted in B1= 0.663. That means when the Social Influence increases by one unit, the Organizational Level of Adoption expected to extend by 0.663 units.

H5: Impact of Tool Availability on the organizational level of adoption to Human Resource Analytics.

Table 15: Model Summary

| Model          | R     | R Square | Adjusted R Square | Std. Error of the Estimate |
|----------------|-------|----------|-------------------|---------------------------|
| 1              | .770a | .594     | .590              | .531                      |

a. Predictors: (Constant), Tool Availability

According to Table 15, the value of Adjusted R Square=0.590, which determines 59% of the Organizational Level of Adoption to Human Resource Analytics variance. It is explained by the predictor variable Tool Availability.

Table 16: ANOVA

| Model          | Sum of Squares | df | Mean Square | F        | Sig.  |
|----------------|----------------|----|-------------|----------|-------|
| Regression     | 50.575         | 1  | 50.575      | 179.661  | .000  |
| Residual       | 34.625         | 123| .282        |          |       |
| Total          | 85.200         | 124|             |          |       |

a. Dependent Variable: Organizational Level of Adoption
b. Predictors: (Constant), Tool Availability

Table 16 indicates whether the predictor variable Tool Availability has a major impact on the dependent variable Organizational Level of Adoption. Consequently, the significance value is less than 0.05, which is 0.000 (0.000 < 0.05) and it specifies that the difference between Tool Availability and Organizational
Level of Adoption to Human Resource Analytics is significant. That means the Organizational Level of Adoption to Human Resource Analytics depends on the Human Resource executive level and above practitioners towards the Tool Availability. Hence, it is possible to reject the Null Hypothesis.

| Model | Unstandardized Coefficients | Standardized Coefficients | t  | Sig. |
|-------|-----------------------------|---------------------------|----|------|
| 1 (Constant) | 1.137 | .242 | 4.697 | .000 |
| TA Mean | .738 | .055 | .770 | 13.404 | .000 |

V. Conclusion

The industrial experts suggest that the adoption of Human Resource Analytics into Organizational Level of Adoption is at an initial stage in Sri Lankan context. Scholarly articles suggest that it this gap has been occurred due to the environmental factors including Fear Appeals, Tool Availability, Social Influence and Data Availability. The research is focused on question “What is the level of impact of environmental factors on organizational level of adoption to Human Resource Analytics?” Derived from the research question the main objective was to investigate the impact of environmental factors on the organizational level of adoption to Human Resource Analytics among large scale apparel companies in Sri Lanka. Hence, Human Resource professionals of the Sri Lankan large scale apparel companies were considered as the research sample for the study. A deductive approach was conducted within the study. Accordingly, the outcome of the correlation analysis suggested that the environmental factors have a strong positive relationship towards the Organizational Level of Adoption when adopting Human Resource Analytics. This denotes that Fear Appeals, Tool Availability, Social Influence and Data Availability have a significant impact towards the Human Resource Analytics adoption. Therefore, it was acknowledged that the environmental factors influence the Human Resource Analytics adoption among large-scale apparel companies in Sri Lanka. This proves that in order to adopt Human Resource Analytics to organizational level, environmental factors should be considered by the Human Resource professionals and management. The causes may vary from each organization. Nevertheless, the organizations should identify these factors deeply when adopting Human Resource Analytics into organizational level. Moreover, it can be suggested to investigate the economic impact of adopting Human Resource Analytics into an organization, the impact of behavioral factors on the adoption of Human Resource Analytics to the organizations and the individual adoption of Human Resource professionals based on the Human Resource Analytics in Sri Lankan context for further studies.

References Références Referencias

1. Arpaci, I., et al. (2012). "Organizational Adoption of Information Technologies: A literature Review " International Journal of EBusiness and E Government Studies [online], v. 4, pp.37-50. Available at: https://www.researchgate.net/publication/285898658_Organizational_Adoption_of_Info rmation_Technologies_A_Literature_Review.  
2. Barman, A. & Choudhury, H. (2016). Human Resource Analytics- Discovering Research Issues Posited in its Milieu in India Organization Human Resource Analytics (HRA) [online], Available at:http://rgdoi.net/10.13140/RG.2.1.4411.9927.  
3. Behzad, K. (2013). "Workforce Analytics or SAP Business Intelligence for Human Resources?" Success Factors [online], Available at:https://blogs.sap.com/2013/05/10/successfactors-workforce -analytics-or-sap-business-intelligence-for-human-re sources/.  
4. Bersin, J. (2013a.) 7 Reasons HR Technology Is So Hot Today. Forbes. Available at: https://www.forbes.com/sites/joshbersin/2013/05/31/7-reasons-hr-techn ology-is-so-hot-today/#3a985236fdcc.  
5. Boudreau, J. (2017). HR Must Make People Analytics More User-Friendly. Data. HBR: Harvard Business Publishing [online], Available at: https://Hbr.Org/2017/06/Hr-Must-Make-People-An alytics-More-User-Friendly.
6. Brown, B., Chui, M. & Manyika, J. (2011) Are you ready for the era of big data? McKinsey Quarterly [Online]. Available at: https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/are-you-ready-for-the-era-of-big-data.

7. Cappelli, P. (2017). There’s No Such Thing as Big Data in HR [online]. Available at: https://hbr.org/2017/06/theres-no-such-thing-as-big-data-in-hr.

8. Carlson, K. D., Kavanagh, Michael J. (2011). Chapter 6 HR metrics and workforce analytics [online], Conference Proceedings Available at: https://ww2.cipd.co.uk/Images/talent-analytics-and-big-data-2013-challenge-for-hr_tcm18-9289.pdf.

9. CIPD (2013). Talent analytics and big data – the challenge for HR Chartered Institute of Personnel and Development [online], Available at: https://www.cipd.co.uk/Images/talent-analytics-and-big-data_2013-challenge-for-hr_tcm18-9289.pdf.

10. Embuldeniya, A. (2018). Impact of Apparel Industry on the Economy of Sri Lanka [online]. Available at: https://www.researchgate.net/publication/326543298_Impact_of_Apparel_Industry_on_the_Economy_of_Sri_Lanka.

11. Export Development Board (2020). Industry Capability Report Sri Lankan Apparel Sector. Export Development Board [online].

12. Fitz-Enz, J. (1995). How to Measure Human Resources Management, New York, Mcgraw-Hill [online].

13. Frambach, R. and N. Schillevaert (2002). "Organizational innovation adoption: A multi-level framework of determinants and opportunities for future research." Journal of Business Research [Online], v.55, pp. 163-76. Available at: https://doi.org/10.1016/S0148-2963(00)00152-1.

14. Gale, S. F. (2012). The Promise of Big Data in Workforce Management. Available at: https://www.workforce.com/news/the-promise-of-big-data-in-workforce-management#:%3A:text=Staffing%20Management,The%20Promise%20of%20Big%20Data%20in%20Workforce%20Management%20to%20help%20organizations%20with%20workforce%20analytics.&text=%E2%80%9CGood%20analytics%20help%20firms%20to,them%20on%20those%20that%20do.%E2%80%9D [Online].

15. Heathfield, S. 2020. What Is a Human Resource? [Online]. Available at: https://www.thebalancer.careers/what-is-a-human-resource-19181144.

16. Jayasundara, S. (2019). Building analytics in Sri Lanka - Going beyond data [Online]. Available: https://www.linkedin.com/pulse/sri-lanka-ready-predictive-hr-analytics-4-ways-how-can-jayasundara.

17. Jayaraj, A. and R. Sabherwal (2008). "Adoption of information systems innovations by individuals: A study of processes involving contextual, adopter, and influencer actions." Inf. Organ. v. 18 (3): pp.205–234. [Online].

18. Johnston, A. & Warkentin, M. (2010). Fear Appeals and Information Security Behaviors: An Empirical Study. MIS Quarterly [Online], v.34, pp.549-566. Available at: https://doi.org/10.2307/25750691.

19. Johnston, C. (2006) 'An empirical investigation of the influence of fear appeals on attitudes and behavioral intentions associated with recommended individual computer security actions', United States, Mississippi State University [Online], Available at: https://www.researchgate.net/publication/299049399_Fear_Appeals_and_Information_Security_Behaviors_An_Empirical_Study.

20. Khanduja, M. 28th October (2012). Evolution of Human Resource Management. HRdictionary [Online]. Available at: https://hrdictionaryblog.com/2012/10/28/evolution-of-human-resource-management/.

21. Keerthi, L. & Reddy, P. R. (2018). Adoption issues of HR analytics [Online], pp.1-7. Available at: http://rgdoi.net/10.13140/RG.2.2.30785.20326.

22. Krejcie, R. V. and D. W. Morgan (1970). "Determining Sample Size for Research Activities." Educational and Psychology Measurement [Online], v. 30: pp. 607-610. Available at: https://home.kku.ac.th/sompong/guest_speaker/KrejcieandMorgan_article.pdf.

23. Kumar, S. & Lochab, A. (2018). Impact of Human Resource Analytics on Organizational Performance: A Review of Literature Using R-Software. International Journal of Management, Technology and Engineering [Online], v.8, pp.12-52.

24. Lakshman W. D. & Tisdell, C. A. (2000). Sri Lanka’s Development Since Independence: Socio-Economic Perspectives and Analysis [online], Huntington, New York, Nova Science Publishers. Available at: https://www.researchgate.net/publication/326543298_Impact_of_Apparel_Industry_on_the_Economy_of_Sri_Lanka.

25. Manjika, J., Chui, M., Brown, B., Bughin, J., Dobbs, R., Roxburgh, C. & Byers, A. (2011). Big data: The next frontier for innovation, competition, and productivity [online], Available at: https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/big-data-the-next-frontier-for-innovation.

26. O’Keefe, D. J. (2015). Persuasion: Theory and Research[online], SAGE Publications, 2015. Available at: https://books.google.lk/books/about/Persuasion.html?id=e3V6Zen0UGwC&redir_esc=y.
27. Pillans, G. & Levenson, A. (2017). Research Report: Strategic Workforce Analytics [online].
28. Rafter, M. (2013) 'Big data big deal', Workforce Magazine [online], Michelle Rafter Available at: https://www.workforce.com/news/big-data-bigger-deal.
29. Rogers, E. M. (1983). Diffusion of Innovation New York Free Press [online], Available at: https://teddykw2.files.wordpress.com/2012/07/everett-m-rogers-diffusion-of-innovations.pdf.
30. Rogers, E. M. (1995). Diffusion of Innovation New York, NY, Free Press. [online].
31. Talukder, M. and A. Quazi (2011). "The Impact of Social Influence on Individuals’ Adoption of Innovation." J. Org. Computing and E. Commerce [online], v.21: pp.111-135. Available at: http://dx.doi.org/10.1080/10919392.2011.564483.
32. Talukder, M. (2012). "Factors affecting the adoption of technological innovation by individual employees: An Australian study." Procedia-Social and Behavioral Sciences [online], v. 40: pp.52–57.
33. Uri Gal, Tina Blegind Jensen & Stein, M.-K. People Analytics in the Age of Big Data: An Agenda for IS Research. ICIS 2017: Transforming Society with Digital Innovation, 2017 Coex Convention Center, Seoul, Korea, Republic of. Atlanta, GA: Association for Information Systems. AIS Electronic Library (AISeL), p.11.
34. Van Den Heuvel, S. & Bondarouk, T. (2017). The rise (and fall?) of HR analytics: A study into the future application, value, structure, and system support. Journal of Organizational Effectiveness: People and Performance [online], v.4. Available at: http://dx.doi.org/10.1108/JOEPP-03-2017-0022.
35. Venkatesh, V., Morris, M., Davis, G. & Davis, F. (2003). User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly [online], v.27, pp.425-478. Available at: http://dx.doi.org/10.2307/30036540.
36. Volini, E., Occean, P., Stephan, M. & Walsh, B. (2017). Digital HR: Platforms, people, and work. 2017 Global Human Capital Trends [Online]. Available at: https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2017/people-analytics-in-hr.html#endnote-sup-2.