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INFLUENCE OF HR ANALYTICS REPRESENTATION ON AWARENESS, TECHNOLOGY AND DECISION MAKING: A STUDY OF MEDIUM AND LARGE ORGANIZATIONS

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ABSTRACT: -

There is an increasing demand for Big Data and Analytics in the business environment and HR as a function is also catching up with the investments in HR Analytics. Interestingly several of its applications are possible which has potential to enhance HR decision making and functioning. The purpose of this article is to understand as to how Presentation of analysis plays a crucial role in successful implementation and adoption of HR Analytics. To understand the use and adoption of HR Analytics in various HR functions this research has used a questionnaire with Likert Scale to get the respondents views across various parameters. The questionnaire was presented in both on-line and physical form to get desired number of respondents. Some of the findings showed that if the Application level on HR Analytics increases the Representation levels in HR functions also increases. Data visualization and storytelling are strategic methodologies to improve impact of presentation of analysis. There is also a role of technology adoption in driving better presentation capabilities among the HR professionals.

KEYWORDS: *HR analytics, technology adoption, HR analytics application, decision making.*

INTRODUCTION :

The last decade and half there has been momentum on use of Analytics in general and good amount of work internationally has been done on HR Analytics. Organizations of repute have established HR Analytics teams which are churning the data and continuously releasing analyzed report with greater insights. This means there is an intent to deviate from traditional dashboard reporting and analysis.

There is abundance of literature on HR Analytics which spans from a mere understanding or awareness level to the use of Analytics to prescriptive stage. Business impact was clearly pursued by many researchers and there is enough literature on the validity of this with the use and adoption of HR Analytics. The models suggested by some of the active researchers and practitioners has been phenomenal and bound to drive the desired business results.

Various HR Functions does consume the services of HR Analytics and there is a good literature on it. Of course it

is imperative to equip the team with the requisite knowledge and skills of driving an HR Analytics agenda though. It is also observed through these literature that the method to reach these business goals is through incremental change, control and enablement of the HR processes which collectively yield the results with adequate decision making.

There is a strong sentiment with the presentation of the data thus collected which also plays a significant role in the success of HR Analytics program in the organization. Data visualization and storytelling techniques were found to have a good level of acceptance and several literature data points suggested the same.

LITERATURE REVIEW:

Data Visualization and Presentation

Storytelling is a capability that is often overlooked when companies are building their people analytics teams (Scott Mondore, Shane Douthitt and Marisa Carson, 2011). This is a mistake as without a compelling story and effective communication, stakeholders are unlikely to action the insights you have toiled so hard to uncover. Cole Nussbaumer Knaflic's book 'Storytelling with Data'

Presenters also stressed that to communicate HRA data to other business functions, HR leaders need to put it into context with a narrative.

"Data tells a story, so it needs to be presented like one," Devon Energy's Eberhardt said. He showed a sample of the HR analytics report that is distributed quarterly to Devon's executive team, and explained that each data point is presented alongside the historical number for that metric, as well as the target.

Pearson's Almeida expressed a similar concern, "Data is abundant but if you don't give it context, it's just a bunch of numbers." She said that reports her team provides to Pearson's HR leaders include internal benchmarks to compare their business units to others in the organization.

The key reason to conduct effective HRA is to conclusively show your business impact within the organization. Showing the actual cause-effect relationship among what you do and business outcomes and building a strategy based on that information is desired (Scott Mondore, Shane Douthitt and Marisa Carson, 2011).

An HRA practitioner will show business value in;

- Calculate ROI for everything thing they do,
- Give evidence based advice on how to drive the business from a people perspective
- Be pursued by line of business leaders to help them reach business targets
- Take accountability for a portion of the organizations financial health
- Show results and not just HR activity completion
- Create an HR strategy that has direct impact on the bottom line.

A comprehensive practical road map to conduction HR Analytics was advocated that drives HR strategy by connecting what is done in HR directly to business outcomes. HRA moves beyond conducting analysis and creates an environment of executive buy-in, cross functional interaction, targeted initiative building and a discipline of measurement and refocussing.

- Determine critical outcomes
- Create cross functional data team
- Assess outcome measures
- Analyse data
- Build program and execute
- Measure and adjust

Making HR analytics available and actionable to front-line business leaders will expand your impact in the organization (Scott Mondore, Shane Douthitt and Marisa Carson, 2011).

Storytelling is critical in getting buy-in, and it's no secret that data scientists have their own data speak.

Yet few have mastered the art of distilling the essence of their findings and telling a compelling story to those who are not in analytics.

Our human capital analytics team spends much time thinking through our storyboard that delivers a salient message in a brief but powerful summary.

We have found the use of short animated videos to work incredibly well for us. In three minutes, we are able to take the audience from zero awareness to a level of amazement at the insights we have uncovered through analytics (Grace Yip, 2016).

We know that the process of learning goes far beyond analytic understanding," Jaschko says. "When we involve our senses in learning, we remember better. Data visualization helps us to see the important aspects in data. The consumption of a data dish connects the analysis to a specific sensual experience. The 'incorporation' of the dish is part of the process."

OBJECTIVES:

This research paper attempts to assess the need for presentation skills which is crucial for the adoption of HR Analytics and its successful implementation. This paper attempts to see the relationship between the application of HR analytics with technology, awareness about HR analytics and the decision making.

HYPOTHESIS:

H1o: There is no association between the representation of HR analytics and the level of managers
H2o: There is no association between the representation of HR analytics and the Organization type
H3o: There is no association between the representation of HR analytics and the employee population
H4o: There is no relation between Decision making capability and Representation of HRA outcomes
H5o: There is no relation between Technology and Application of HRA
H6o: There is no relationship between Technology and Application of HRA
H7o: There is no relationship between Application of HRA and Representation of HRA outcomes

RESEARCH METHODOLOGY:

The purpose of the research work is to examine the use of HR Analytics to drive decision making resulting in business impact. This study further aims to assess the relationship between the various constructs in terms of implementation and outcomes derived. Effect of demographic factors on the analytics practice is assessed as well. Hence, this type of research is descriptive and empirical in nature.

Analysis:

Representation of analysis among the Senior level manager and Middle level manager
H1o: There is no association between the representation of HR analytics and the level of managers

Table

	Designation	N	Mean	Std. Deviation
Representation	Senior level manager	71	3.90	.674
	Middle level manager	22	3.68	.646

Table

	t-test for Equality of Means		
	T	df	Sig. (2-tailed)
Representation	1.348	91	.181

There was no significant difference in the scores for Representation of Analysis among the Senior Level (M=3.90, SD = 0.674) and Middle Level Managers (M = 3.68, SD = 0.646) conditions; t(91) = 1.348, p = 0.181.

These results suggest, there was no difference in the opinion on Representation of Analysis amongst the population distribution between the Senior Level Managers and the Middle Level Managers. This goes on to prove that why presentation strategies are important for a successful HR Analytics implementation and it does not matter at what level one is in the organization and only strategy matters.

Representation of difference between the Services industry and Manufacturing industry

H2o: There is no association between the representation of HR analytics and the Organization type

Table

	Organization type	N	Mean	Std. Deviation
Representation	Services industry	74	3.82	.660
	Manufacturing industry	19	3.97	.716

Table

	t-test for Equality of Means		
	T	Df	Sig. (2-tailed)
Representation	-.904	91	.368

There was no significant difference in the scores for Representation among the Service Industry (M=3.82, SD = 0.660) and Manufacturing Industry (M = 3.97, SD = 0.716) conditions; t(91) = -0.904, p = 0.368.

These results suggest, there was no difference in the Representation of Analysis amongst the population distribution between the Service Industry and the Manufacturing Industry. This goes on to prove that why presentation strategies are important for a successful HR Analytics implementation and it does not matter at what level one is in the organization and only strategy matters.

Representation of difference between the Categories of employee population

H3o: There is no association between the representation of HR analytics and the employee population

Table

	N	Mean	Std. Deviation	Std. Error
Less than 2000	39	3.69	.592	.095
2001 to 5000	33	3.80	.749	.130
Above 5000	21	4.21	.561	.122
Total	93	3.85	.671	.070

Table

ANOVA					
Representation					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.810	1	.810	1.816	.181
Within Groups	40.583	91	.446		
Total	41.392	92			

A one-way between subjects ANOVA was conducted to compare the effect of employee population or size of company on ability of Representation of HR Analytics. The test was conducted to check if there is any change in ability of Representation of HR Analytics among respondents from different organisations who are varying in employee populations.

There was no significant effect of Employee Population on Awareness at the p< 0.05 level for the three conditions [F (1, 91) = 1.816, p = 0.181].

It can be interpreted from the description table that the respondents who had an employee population of less than 2000 (M = 3.69, SD = 0.592) had lower Representation levels with respect to the other groups. Though there was very little difference among the rest of the groups, the confidence level kept increasing as the number of employees went up and the maximum was for employee population Above 5000 (M = 4.21, SD = 0.561). It was seen that the groups with higher employee population has better Representation levels which is very important to have presentation strategies for a successful HR Analytics practice and its utility in terms better decision making resulting in positive business impacts.

Correlation between Decision making capability and Representation of HRA outcomes

H4o: There is no relation between Decision making capability and Representation of HRA outcomes

Table

Descriptive Statistics			
	Mean	Std. Deviation	N
Decision Making	4.41	.412	93
Representation	3.85	.671	93

Table Correlations			
		Decision Making	Representation
Decision Making	Pearson Correlation	1	.546**
	Sig. (2-tailed)		.000
	N	93	93
Representation	Pearson Correlation	.546**	1
	Sig. (2-tailed)	.000	
	N	93	93

In this case Pearson Correlation value is between 0.4 - 0.6 Pearson's r is 0.546. We can interpret that there is a moderate, Positive correlation between Decision Making and Representation variables.

In this case the correlation value is positive. We can interpret that when the Decision Making on inputs from HR Analytics increases the Representation of findings from HR Analytics also increases.

In this case the Significant Correlation value is less than 0.05. We can interpret that there is a highly statistically significant correlation between Decision Making on inputs from HR Analytics and the Representation of findings from HR Analytics.

Further this can also be interpreted that if the Decision Making level on HR Analytics Representation increases the levels also increases.

Correlation between Technology and Application of HRA

H5o: There is no relation between Technology and Application of HRA

Table

Descriptive Statistics			
	Mean	Std. Deviation	N
Technology	3.92	.543	93
Application	4.10	.567	93

Table

Correlations			
		Technology	Application
Technology	Pearson Correlation	1	.441**
	Sig. (2-tailed)		.000
	N	93	93
Application	Pearson Correlation	.441**	1
	Sig. (2-tailed)	.000	
	N	93	93

In this case Pearson Correlation value is between 0.4 – 0.6 Pearson's r is 0.441. We can interpret that there is a moderate, Positive correlation between Technology and Application variables.

In this case the correlation value is positive. We can interpret that when the Technology use in HR Analytics increases the Application and adoption of use HR Analytics also increases.

In this case the Significant Correlation value is less than 0.05. We can interpret that there is a highly statistically significant correlation between Technology use in HR Analytics and the Application and adoption of use HR Analytics.

Further this can also be interpreted that if the Technology use and adoption level on HR Analytics increases the Application levels in HR functions also increases.

Correlation between Technology and Representation of HRA outcomes

H6o: There is no relationship between Technology and Application of HRA

Table

Descriptive Statistics			
	Mean	Std. Deviation	N
Technology	3.92	.543	93
Representation	3.85	.671	93

Table

Correlations			
		Technology	Representation
Technology	Pearson Correlation	1	.297**
	Sig. (2-tailed)		.004
	N	93	93
Representation	Pearson Correlation	.297**	1
	Sig. (2-tailed)	.004	
	N	93	93

In this case Pearson Correlation value is between 0.2 – 0.4 Pearson's r is 0.297. We can interpret that there is a weak, Positive correlation between Technology and Representation variables.

In this case the correlation value is positive. We can interpret that when the Technology use in HR Analytics increases the Representation of findings from HR Analytics also increases.

In this case the Significant Correlation value is less than 0.05. We can interpret that there is a highly statistically significant correlation between Technology use in HR Analytics and the Representation of findings from HR Analytics.

Further this can also be interpreted that if the Technology use levels in HR Analytics increases the Representation levels of showcasing the analysis also increases.

Correlation between Application of HRA and Representation of HRA outcomes

H7o: There is no relationship between Application of HRA and Representation of HRA outcomes

Table

Descriptive Statistics			
	Mean	Std. Deviation	N
Application	4.10	.567	93
Representation	3.85	.671	93

Table

Correlations			
		Application	Representation
Application	Pearson Correlation	1	.428**
	Sig. (2-tailed)		.000
	N	93	93
Representation	Pearson Correlation	.428**	1
	Sig. (2-tailed)	.000	
	N	93	93

In this case Pearson Correlation value is between 0.4 – 0.6 Pearson's r is 0.428. We can interpret that there is a moderate, Positive correlation between Application and Representation variables.

In this case the correlation value is positive. We can interpret that when the Application and adoption of use HR Analytics increases the Representation of findings from HR Analytics also increases.

In this case the Significant Correlation value is less than 0.05. We can interpret that there is a highly statistically significant correlation between Application and adoption of use HR Analytics and the Representation of findings from HR Analytics.

Further this can also be interpreted that if the Application level on HR Analytics increases the Representation levels in HR functions also increases.

FINDINGS:

It can also interpreted that if the Awareness level on HR Analytics increases the Representation levels also increases.

There was no difference in the opinion on Representation of Analysis amongst the population distribution between the Senior Level Managers and the Middle Level Managers. This goes on to prove that why presentation strategies are important for a successful HR Analytics implementation and it does not matter at what level one is in the organization and only strategy matters.

It has been seen that the groups with higher employee population has better Representation levels which is very important to have presentation strategies for a successful HR Analytics practice and its utility in terms better decision making resulting in positive business impacts.

SUGGESTIONS:

The study and presentation is suggested that organizations should therefore quickly create a business case for initiating the analytics journey with clear goals in mind.

Due to advances already made by various researchers and practitioners on this topic, it is suggested to have an Analytics team in place, equip with requisite skills and technology platforms, get the entry level analytics into actions followed by a maturity plan.

HR professionals will gain from presentation of data, capabilities are bound to improve with the inferences gained, so this deviates from the conventional gut feeling way of decision making.

MANAGERIAL IMPLICATIONS:

Critical to any successful implementation of HR Analytics is to also look at two key attributes which can potentially lead to the prescribed outcomes of the adoption, they are;

-The study highlights the beneficiaries of HR Analytics within the HR Functions, this demonstrates the utility beyond the theoretical boundaries.

-The study also highlights the importance of good presentation strategies especially since data and

analysis does not speak for themselves it is therefore all the more important to use good skills of presentation, visualization is the key.

CONCLUSION:

Adoption of HR Analytics though is key for every HR professional, it is important to connect the people strategy with the business strategy. Analytics is promising and with the right impetus on the use of Technology, Application across various HR Functions and lastly presentation of the thus analysed data into actionable insights is key for any successful implementation in organizations.

Decision making is improved as an outcome of HR Analytics which inturn is seen as an important attribute to drive business impact.

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