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A Study on the Acceptance of HR Analytics in Organisations

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Abstract:
Organisations today are increasingly becoming globalised and facing VUCA (vulnerability, uncertainty, complexity and ambiguity) in the business environment. Under such conditions, making the right decisions and sustaining competitive advantage are the goals of any organisation. Business analytics has emerged as an important tool to address these goals. Research literature and reports suggest that application of analytics to manage human resources (HR) in an organisation is minimal. In view of this, research is undertaken to study the current scenario of HR analytics in the Indian context and to identify factors that influence the acceptance of analytics among HR professionals. This paper discusses the results of qualitative phase which is based on interviews conducted among HR professionals.

Keywords: *Analytics, analytics in HR, HR analytics, acceptance of HR analytics, factors influencing acceptance of analytics*

1. Introduction

The rapid growth of information technology (IT) and its pervasiveness is the reality of the present time. In the IT connected world, people leave a trail of data after them. Organisations have begun to realise that with sophisticated technologies available today, they can use the data to their advantage. This has, in the recent years, fuelled the rise of business analytics (BA). Business analytics is defined as the "extensive use of data, statistical and quantitative analysis, explanatory and predictive models and fact-based management to drive decisions and actions" [1]. The popularity of business analytics can also been seen in the growth of the business analytics software market which was valued at $40 million worldwide with a growth rate of 6.5% in 2014[2].

Since analytics can be used to drive human or fully automated decisions, it can be used to support almost any business process [1]. The proof for this can be seen in the use of analytics by finance, sales, marketing and supply chain. Compared to these functions, the human resources function (HR) has been marked as a laggard and has been regarded as rather late entrant to using analytics [3], [4]. This is rather remarkable since HR is no stranger to data. Typically HR departments in organisations possess a treasure trove of data from both within and outside the organisation. These include data related to employee benefits, compensation and performance management, incentive programs, recruitment and training data besides data from other internal departments such as consultants, suppliers, vendors [5]. Considering the extent of data residing within HR, it is surprising that HR is not more actively involved in analytics [3]. An active involvement in analytics would also mean the participation of HR employees in analytical activities. Since use of analytics by HR in an organisation is reflective of the HR professional's involvement, this study attempts to understand what can drive the acceptance of analytics in HR from an individual perspective: that of HR professionals themselves.

2. Literature Review

There a lot of varied definitions of what HR analytics is; this paper adopts the one from [6] where HR analytics is defined as "demonstrating the direct impact of people data on important business outcomes". The terms "analytics in HR" and "HR analytics" are used interchangeably.

Though there is a perception that HR is a soft-area where numerical methods cannot be applied [7]. HR is not a stranger to using data, as measurement of people (or human resources) has been a subject of interest since the time of Fredrick Taylor, who began the scientific management movement [8]. A study by Lawler III and Boudreau [9] showed that use of metrics and analytics by HR increased the scope of HR being seen as a strategic partner in the organisation. Organisations such as Google, Best Buy and Sysco have been able to enhance their competitive advantage through their use of HR analytics [10]. Researchers have also observed that the use of analytics in order to understand how HR practices and policies impact organizational performance is a powerful way for HR functions to add value to their organization [11].

Also organisations today have the ability to access and process a variety of data compared to a decade ago thanks to the developments made in information and communication technology [12], [13]. However, despite these advances in technology over the years, HR has not been very adaptive to analytics [8], [14].

To help HR overcome this attitude towards analytics, researchers and consultants have proposed factors, steps and maturity models that could be leveraged by HR for using analytics in its processes and practices. Davenport, Shapiro and Harris [10] proposed a ladder of talent analytical applications and the DELTA model - which stands for data, enterprise, leadership, target and analysts - for successful implementation of analytics. Kiron et al [15] identify three factors which could be used to gain analytical sophistication namely information management competency, analytical skills and tools and data oriented culture. Levenson [16] suggests an organisation should have a strong analytic culture which is built through an emphasis on decisions at every level to be based on data. However, there is a lack of discussion about the HR professionals himself in this models and steps for using analytics. This study aims to factors which can drive HR professionals to adapt more to analytics.

3. Theory

Since the study was focused on HR professionals, theoretical basis for it was drawn from the widely researched field of individual acceptance of technology in information systems. A large number of models were developed by researchers based on theories in sociology and psychology to explain factors that drive acceptance and adoption of technology by individuals/ employees of an organisation. After a review of existing models, it was decided that the unified theory of acceptance and use of technology (UTAUT) [17] would be used as a guide for the qualitative study as it is a parsimonious model which explained up to 70% of variance in acceptance behaviour.

4. Research Objective

Based on the literature reviewed, the following research objective was proposed:

- To identify factors that can influence acceptance of analytics in the human resources (HR) function.

5. Research Design

Most studies in the literature was in the western context and the extent to which organisations in India use analytics was not clear from the literature, it was decided that qualitative method would be used to address the research objective as it can provide "well-grounded, rich descriptions and explanations of processes in identifiable local contexts" [18].

A semi-structured questionnaire with open-ended questions was developed to probe into the research objective. The questionnaire also contained a short note explaining the purpose of the study. The questionnaire is attached in Appendix 1.

6. Research Method

6.1. Sample

Purposive sampling was used to obtain respondents to the study. The questionnaire was administered to13 respondents who were HR professionals in various industries: 3 from manufacturing, 3 from IT/IT-related, 1 from FMCG and 6 from consulting/ service providers.

6.2. Data Collection

The responses to the questionnaire were collected either at a face-to-face meeting, over email or over the telephone. Where permitted, the responses were recorded and transcribed the same day. In certain cases where recording was not allowed, notes were taken during the interview.

6.3. Analysis

The transcripts/notes were loaded into the qualitative data analysis software (MAXQDA) with the aim of analysing the content of the interviews to answer the research objective. A provincial start list of possible codes based on the research question and the existing variables in literature was generated to be used as reference. The text – words, phrases or sentences- was first coded (open coding) and similar codes combined into categories. This content analysis was based on guidelines described in Miles and Huberman [18]. The results from the coding exercise were checked by another researcher not involved in the study.

7. Results and Discussion

The interview transcripts were analysed with the intention to extract driving forces that HR employees perceive are important in the acceptance of analytics. Specifically, the factors were split into two three categories: individual, organisational and technological.

7.1. Individual Factors

Five categories emerged under individual factors: readiness to change, analytical skills, opportunities to use, understanding importance of analytics, and performance expectancy [17]. Of these analytical skills was cited as the top individual level factor influencing the use of analytics in HR. The frequency of the categories is shown in Table 1.

Categories	Individual Factors	
	Frequency	Percentage
Analytical skills	13	39.39
Performance expectancy	7	21.21
Readiness to change	5	15.15
Understand Importance	4	12.12
Voluntary use	3	9.09
Opportunities to use	1	3.03

Table 1: Individual Factors

7.2. Organisational Factors

Organisational size was also mentioned as an important determinant of whether HR ventured into analytics or not with a couple of respondents saying that HR analytics could not be exploited much in a small organisation. Organisational factors included analytics culture, facilitating conditions like training and resources, vision for using analytics, and data factors such as availability of data and data-sharing between different functions. The frequency of the categories is shown in Table 2.

Categories	Organisational Factors	
	Frequency	Percentage
Training	5	45.45
Top management support	5	45.45
Analytical Culture	4	36.36
Organisational size	4	36.36
Vision for using analytics	3	27.27
Data sharing and access	3	27.27
Visionary	2	18.18
Top management influence	2	18.18
Resources	2	18.18
Availability of data	2	18.18
Business type	1	9.09

Table 2: Organisational Factors

Since some of the categories were similar, they were combined to make a shorter list as given in Table 3. Here again, UTAUT [17] was used to make the categories more comprehensive.

Categories	
Analytical culture	Same as in table II
Facilitating conditions	Training, Resources
Social influence	Top management support, top management influence, visionary
Vision for using analytics	Same as in table II
Data factors	Availability of data, sharing of data

Table 3: Organisational Factors Revised

7.3. Technological Factors

Effort expectancy emerged as the technology factor with respondents saying that if tools and softwares for analytics were easy to use and user-friendly and there was technical support available, there would be more interest in analytics from HR professionals.

8. Limitations and Conclusion

Though efforts were taken to minimise bias, it is possible that some bias might have crept in due to the the effect of the researcher on the respondent and vice-versa [18]. Although purposive sampling was used to identify right respondents, the sample size might be another source of bias. However, in spite of these limitations, this study is important as a first step towards understanding HR and its involvement in analytics.

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