Importance of Integrating HR Analytics to Measure Employee Learning and Development: A Descriptive Study towards Human Return on Investment

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Abstract: *In the strategic management of Human Resources (HR), the portrayal of employees as human assets has significant inferences*
as it highlights the human investment perspective in firms. It necessitates an appropriate and integrated approach to managing the workforce with the organization's strategy. However, it needs the best HR practices and metrics to identify the effectiveness of productivity, profit, growth, and innovation. This involves dilemmas related to the investment in the workforce. Accordingly, this study helps to identify the significance of integrating HR analytics to measure employee learning and development in a selected University in the United Arab Emirates. A questionnaire was developed based on the intensive literature review. The primary data was collected by interviewing employees from different strata. The collected data was analyzed by descriptive statistics and tested the crafted hypotheses through a Confirmatory Factor analysis (CFA). The results prove the significance of HR analytics in employee development toward organizational effectiveness. Organizations that invest in their talent force are more attractive to prospective employees and can retain the best talents for firms' future growth and stability. Well-trained employees increase a competitive advantage to firms in the marketplace and ensure a Return On Investment (ROI). Hence, this study can be a roadmap to determine the actual "value" of each employee. Valuation of human assets has a high impact on performance, compensation, career development, and retention strategies in firms. Future studies can be concentrated on these areas.

Keywords: Human Resource Analytics, Learning and Development, Employee Development, Human Value, Return On Investment.

1 Introduction

An organization that invests in its employees will be more attractive to prospective employees and will have less difficulty in retaining current employees; this leads to efficiency and gaining the organization's competitive position.

1.1 Purpose and aim of the study

Firstly, the study tries to examine the importance of HR analytics in general and how it links to employee performance. Though the performance is based on a lot of parameters, here it focuses only on learning and development (L&D) activities. It then identifies and confirms the latent variables for learning, employee development & human Return on Investment (ROI) through reliable measurements. The outcome of the study recommends that the firm incorporate HR metrics to measure the effectiveness of employee development. This can minimize firms' operation costs and increase revenue per employee. This proposed business model can not only upgrade employee knowledge, skills, and abilities to make better decisions but also ensure ROI.

1.2 Objectives of the study

1. To understand the significance of HR analytics in L&D.

2. To understand the significance of HR analytics in employee development.

3. To identify the relationship between HR analytics and human Return on Investment (ROI).

2 Literature Review

Human Resource Management International Digest (2017) defines HR analytics as the systematic identification and quantification of personnel practices to make better decisions for business outcomes [1]. As of now, HR analytics literature has mostly focused on several areas; limitations, and challenges facing HR analytics development (Boudreau & Casio, 2017; Huselid, 2018; Jeske & Calvard, 2020), how to develop and utilize HR analytics (Green, 2017), and the significance and effect of analytical skills (Mc Cartney, et al, 2020)[2-6]. Now, it concentrates on the enhancement of roles and the overall contribution of HR throughout the firm (Bradley, 2017)[7]. Although these favorable conditions exist, HR analytics in the UAE is still in its infancy. Due to such a context, firms are trying to maximize the use of HR analytics, but there is insufficient data to describe HR managers' approaches to HR analytics within the region (CIPD, 2015)[8]. Spahic (2015) argues that private enterprises rely more on analytics to predict future employee training needs. In light of this, the study explores the need for HR analytics in measuring L&D and employee development, their working process, outcomes, and recommendations for its development[9].

HR analytics offers great potential for organizations in the UAE, but two challenges stand in the way: there are few HR analytics experts capable of implementing HR insights processes, and the IT infrastructure required for efficient collection and

analysis of high-quality data is lacking. Hence, the study tries to fill the gap between the approaches and incorporation of HR analytics to demonstrate the ROI. It has also been noted that small businesses are reluctant to adopt HR tools because they fear metrics and are uncomfortable with the level of statistics used in HR analytics (Vargas, 2015; Rafter, 2013)[10-11]. Additionally, this study refers to two cases, Pricewaterhouse Coopers and Frito-Lay case study, for the effectiveness of HR analytics in L&D practices. As this is a medium firm, this research proposal can be considered and developed in the future in all HR best practices to demonstrate the ROI.

2.1 Linking HR analytics and L&D

Coolen and IJselstein (2015), highlight that HR analytics is not statistics and measurements but the provision of data on understanding the business challenges and HR perspectives, such as training needs[12]. Research conducted by Best Practice Institute found that 82% of HR executives utilize analytics to determine how to develop their top talents. Around 80% of companies use analytics to determine the characteristics of leaders that demonstrate or predict their effectiveness. In a survey of HR professionals, 73% said they wanted to retain employees based on their future contributions (Carter, 2020)[13]. Thus, it can create a high-involvement work system (Ruparel et al., 2020)[14].

2.2 HR Analytics and Employee Development

Companies analyze HR analytics reports and use the data to predict the future needs of their organizations, including employee development needs (Fitz-enz & Matox, 2014)[15]. Several studies on HR analytics highlight its impacts as improved human capital management (Mihalcea, 2017), increased employee productivity (Sharma & Sharma, 2017), enhanced workplace learning (Giacumo & Breman, 2016), and a higher return on human capital investment (Mihalcea, 2017)[16-18]. These can enhance career opportunities and less turnover. When employees' performances are evaluated, strategies can be designed to improve the KSAs of each employee. The study utilizes the ‘labor markets’ model to find external labor market and career issues, and business model issues to retain employees through employee engagement. Thus, it allows a correlation of the significance of HR analytics in L&D in employee engagement (Levenson et al., 2005)[19].

2.3 HR Analytics and ROI

By relying on analyzable data, HR can make a meaningful contribution to the generation of better decisions. Spahic (2015) argues that by overlooking past mistakes and instead focusing on predictive analytics, HR can be able to overcome past failures, avoid repeating them in the future, predict future outcomes, and formulate organization-wide development strategies. Therefore, HR analytics helps

a business to transform regular descriptive information and numbers into meaningful outcomes (Sharma & Sharma, 2017).

2.4 Formulation of Hypotheses

Evaluation of employee performance identifies the strengths and weaknesses of individual employees, accordingly, measures can be taken to improve the skills and abilities of each employee. This improves the competency level. The research utilizes the 'Capability-Opportunity-Motivation' (COM) model to link with the L&D to identify the variables that impact employee performances individually and in group roles (Blumberg and Pringle, 1982; Boudreau et al., 2003)[20-21]. It is important to quantify the ROI in L&D to achieve strategic objectives. This enhances a shared culture and creates values for the firm. Thus, the first hypothesis is,

H1: HR analytics has a significant role in employee L&D.

A study of Fortune 100 annual reports found that 14% of reports contained at least one quantitative measure (turnover rate, investment in training, percentage of pay that is variable, employee attitude survey) of HR management (General Electric annual report, 2005) that can create value to the organizations in its profitability (evidence-based platform)[22]. This allows the executives to make better decisions in compensation, improve operations by considering external factors in job design, and boost productivity through personal & professional development (Schneider, 2006)[23]. Even though HR analytics literature has advanced; on how HR analytics can improve organizational performance (Margherita, 2020), research on how HR analytics impacts, and influences, performance remains scarce (Huselid, 1995). Moreover, Schuler (2015) highlights its impact on creativity[24-26]. The next hypothesis is,

H2: HR analytics has a significant role in employee development.

HR analytics helps to produce evidence in the form of organizational facts, allowing managers with actionable insights that can be utilized as evidence in decision-making. These are long-term rather than short-term plans. Likewise, when insights derived from HR analytics are deployed for making decisions, coupled with other sources of evidence, it enhances organizational performance (Minbaeva, 2018)[27]. The dilemma here is whether it helps to communicate revised policies & strategies to the top management. The 'organization design model' assists in linking work and management processes, structure, rewards, and people while crafting a strategy (Galbraith, 1977)[28]. This raises another question of whether the employees are aware of the mission, the impact of performance management, & reward strategies. Thus, the third hypothesis crafted is,

H3: HR analytics plays a valuable role in ROI.

The below conceptual model illustrates the research questions based on the detailed literature review (Figure 1).

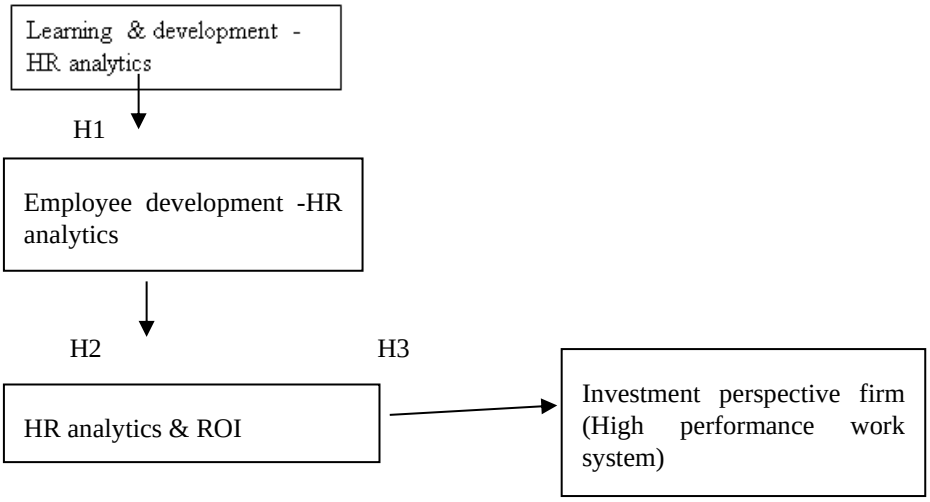

Figure 1.
Conceptual model for the study

3 Methodology

The methodology outlines the researcher's approach to ensuring reliable, valid results that address the objectives. Also, the Gantt chart assists in systematically planning the research and properly distributing the resources (Appendix I).

3.1 Data collection methods: Primary data and Secondary data

To ensure the wide applicability of results, the study tested the hypotheses on a sample of employees from a UAE-based University. The primary research method involves gathering original data tailored to the specific research question (Gratton & Jones, 2010)[29]. A questionnaire was self-developed, and 'closed' in form, based on a five-point Likert scale (1-absolutely agree to 5- disagree) (Likert, 1932) as the model of rating utilized for primary data collection[30]. This tool was developed by Cronbach in 1951, to measure the reliability of the data and tests to see if multiple-question Likert scale surveys are reliable. Additionally, interviews and interactions were done. Demographic factors were included at the beginning of the questionnaire, followed by above mentioned independent variables. Typically, secondary research involves synthesizing data and literature organized and published by others. The researcher conducts a pilot study before the secondary

research to familiarize with the topic. Various determinants of L&D, its alignment to HR analytics, and finally, the need to integrate HR analytics for human ROI were identified from various sources such as published books, peer-reviewed journals, government, and non-governmental/professional bodies and these served as secondary data (Boundarouk et al., 2017)[31]. The questionnaire has been attached as Appendix II for the identified variables and items. Moreover, the results of the demographic characteristics show that the survey contains 65 males (56.0%) and 51 females (43%) with a major share of the age group between 46 years and 55 years (45.7%)); having an experience of 10-20 years with a share of 47.4%. Also, a lion's share of respondents (56.9%) were PG or other professionals (Appendix III).

3.2 Justification of Research Methods

As the University is a growing education sector and the management is keen on expanding the academic programs and for employee retention, this type of survey is appropriate to collect information from the employees. Accordingly, the questionnaire consists of 14 questions, grouped into 3 categories, distributed to a diverse population in two rounds according to their flexibility in filling out the questions. The sampling method was stratified proportional to get a wider response from different groups of individuals. This quantitative approach assists in getting information from a large group of people within a short period. Out of 150 questionnaires, 120 were returned, and 4 of them were eliminated due to a lack of missing information. Hence, 74.7% of the total number of distributed questionnaires can be regarded as representative of the population where the study was conducted. This approach aids in choosing appropriate statistical tools, which in turn assists in providing straightforward findings and interpreting the data with less error and subjectivity. The reliability can be rechecked and less open to arguments.

Moreover, interaction with the employees provides insight into employees' experiences, feelings, and perceptions of L&D factors, and the importance of HR analytics to design, test, or improve systems or to increase employee performance. Observation aids in measuring and recording quantitative or qualitative data. By using this method, knowledge can be gained without the bias that can occasionally be present in interviews. This approach maintains flexibility as new ideas or patterns emerge, and a process in data collection and analysis can adjust. It is not rigidly predetermined at the beginning.

On the other hand, secondary data facilitates the collection of primary data in a more specific manner and helps to identify the gaps and deficiencies that need to be filled and what additional information needs to be gathered. This is more economical with less effort and saves time. The sources aid in developing hypotheses by understanding the variables in a better way and thus it evaluates the cost of primary research. Both quantitative (relates to generalizing the research findings) and qualitative research (pursues an understanding of the reality of a phenomenon) methods assist in developing a better business model. Therefore, the research

methods form a triangulation as it uses more than one data collection method, leading to the development of different databases. This assists in getting the results with the same conclusions, then the methods help to validate each other (Brender, 2006)[32].

After the great recession period of 2008, most organizations recognized the necessity of accurate evidence-based people-management practices which involve analytics, decision-making, and problem-solving (Reddy and Lakshmikeerthi, 2017)[33]. Hence, the study peeps into a business model and how it impacts the implementation of HR analytics; and perspectives on how it adds value at different stages in the business model.

3.3 Ethical issues

To design an ethically sound research project, participants, the researcher, the wider community, and the institution all need to be considered. The present study refers to the American Psychological Association (APA) Ethics Code to get acquainted with ethical practices while doing qualitative research (APA, 2017)[34]. Additionally, ethical research needs to have 'informed consent' (Denzin & Lincoln, 2011)[35]. Firstly, the study was discussed with the concerned authority in the firm to avoid any harm to the firm and any other members. Secondly, the willingness of the respondents to participate in the survey was very difficult, so the researcher explained the relevance of their feedback, the intention of the research, how it will be used, and the possible issues if any. To have mutual understanding, trust, and participation, the researcher confirms to maintain confidentiality and anonymity, and there was no coercion for the response, considers critical awareness of the participants' own bias, and upholds the appropriate time for the participation. Thirdly, to avoid own biases with varied cultural groups, the researcher was highly approachable concerning the respondent's age, gender, race, religion, etc. Lastly, the results were carefully maintained to avoid plagiarism or research misconduct.

4 Analysis, Findings, and Discussion

This section explains the statistical tools, tests, and findings.

4.1 Data measurement

A one-way analysis of variance (ANOVA) was performed to assess the representativeness and identify differences between the valid sample and the deleted responses. Similar to this, a comparison of the survey and later interactive responses has been done to ascertain the representativeness of the sample (Wilcox et al., 1994).

Measurements

Learning and Development: To measure this, four variables were used (competency development, leadership, teamwork, and shared values). Respondents were asked to mark their perspectives according to a 5-point Likert scale. All one-dimensionality scales are being determined and Cronbach's coefficient α (Table 2) was used for the evaluation of internal consistency. These questions measure latent variables and inform the researcher how closely related a set of test items is as a group (Lavrakas, 2008). The values for this item were 0.82 i.e., > 0.7, then it can be considered a priority (Nannally, 1978), and values >0.60 are considered acceptable (Hair et al., 1998). While considering the subjective L&D data, several previously published studies examining HR analytics and L&D have used several self-reported performance measures (Coolen and IJselstein, 2015).

Employee development: To measure this, 5 items were developed (evidence-based platform, external factors for job design, personal & professional development, compensation through skill development, and degree of creativity) (Margherita, 2020; Huselid, 2018). Each item was evaluated on a Likert scale and the alpha value was 0.83.

HR analytics and ROI: Given that no valid scale has been developed to measure ROI, the study applies a theoretical framework (Galbraith, 1977) and adopts questions from established scales to reveal the theoretical definition (Sharma & Sharma, 2017). The dimensions were; the firm's mission, the use of new strategies & policies, long-term plans for employee investment, a performance management system, and a reward system (Spahic, 2015). The alpha value was 0.87.

Subsequently, the obtained data were processed and analyzed by statistical techniques of numerical indicators. First, descriptive statistics were utilized to understand the Mean and Standard Deviation. Then, the structural equation model (SEM) was developed using the software package AMOS. Additionally, Confirmatory Factor Analysis (CFA) was performed to examine whether the hypothetical model collected data adequately.

4.1.1 Data analysis

First, descriptive statistics were done to describe the central position of a frequency distribution for the data. Psychometric characteristics of the scale, including one-dimensionality, reliability, and validity were evaluated to confirm the conceptual model (Table 1).

Variables	Mean	Std.Dev.	Variables	Mean	Std. Dev	Variables	Mean	Std. Dev
Q1_1	3.7	0.89	Q2_1	4.1	0.81	Q3_1	3.9	0.89
Q1_2	3.6	0.88	Q2_2	4.0	0.87	Q3_2	3.8	0.88
Q1_3	3.9	0.90	Q2_3	3.9	0.98	Q3_3	3.2	0.98
Q1_4	4.2	0.91	Q2_4	4.1	0.81	Q3_4	3.2	0.98
			Q2_5	4.0	0.87			

Table 1.
Descriptive Statistics of Variables

It is evident from the table that the values for Std. Dev is <1, so the items are good enough for further analysis. To examine interdependence within a large number of variables, CFA was done where a correlation matrix was tested. Also, the maximum likelihood method was used as a method of assessment. The obtained results are satisfying, indicating a proper fitting of the measuring model.

This means that the respondents have almost the same feelings on all variables. All these items can be incorporated into the firm's HR analytics to measure L&D activities (Spahic, 2015). The estimated measuring model by using CFA determines the variables are reliable, and shows that all factor loadings are important (p.0.5). Structural relations have been tested, which indicates significant differences in factor loadings in the firm. This supports the view of Mc Cartney et al (2020) that HR analytics is the effect of analytical skills. It also highlights how to utilize HR analytics about employee L&D activities. A focus on these kinds of analyzable data can enable HR to make valuable contributions to better decision-making while selecting the latent variables for L&D. Thus, the firm can transform descriptive information and numbers into meaningful outcomes by using HR analytics (Sharma & Sharma, 2017).

Model	x^2	df	x^2/df	p	IFI	TLI	CFI	PNFI	AIC	RMSEA
					0.00	0.00	0.00	0.00	5271.660	0.170
Independence	5183	462	11.220	<0.0001						
14 -items	961.341	423	2.271	<0.0001	0.891	0.880	0.890	0.746	1127.341	0.059

Table 2.
Model fit Indices for CFA- HR analytics for L&D for ROI
Source: Data analysis

4.1.2. Hypotheses test

As a next step, the study analyses hypotheses, H1 to H3. The following Table 2 establishes the influence of HR analytics on latent variables. There is statistical significance to the factor loadings (p>0.5). The provision of these kinds of data identifies an understanding of the business challenges and HR perspectives, such as learning needs. This enhances talent management in the firm (Coolen and IJselstein, 2015). Moreover, the regression coefficient for dependent and independent variables in Table 3 proves that considering these factors in HR analytics has a significant impact on human ROI as the standardized direct effect is greater than the recommended value (0.4). Moreover, the values for reaching the significance level as p-value is <0.001 and maintains the reliability (AVE values). This illustrates the processes in L&D activities and outcomes of ROI.

Construct		Nonstandard loadings	factor	T-values	Standard loadings	factor	Convergent validity	AVE	Cronbach alpha
									0.825
L&D	L&D4	1.000			0.723		0.541	0.590	
		0.981		12.513	0.753				
	L&D3	0.930		12.224	0.728				
		1.036		13.101	0.766				
	L&D2								
	L&D1								
ED	ED5	1.000			0.678		0.576	0.592	0.835
		1.120		13.812	0.786				
	ED4	1.172		14.567	0.842				
		0.867		13.012	0.667				
	ED3	0.778		12.121	0.765				
	ED2								
	ED1								
ROI	**ROI5**	**1.000**			**0.867**		**0.556**	**0.661**	**0.876**
		1.210		**18.121**	**0.826**				
	ROI4	**1.131**		**16.278**	**0.823**				
		1.145		**16.121**	**0.799**				
	ROI3	**1.115**		**17.765**	**0.785**				
	ROI2								
	ROI								

Table 3
CFA
Source: Data analysis

The above values confirmed the convergent validity that indicates the extent to which the indicators utilized for measuring a particular concept related to the study.

The share of explained variance indicators is higher than 0.5 (AVE>0.5). This shows that the latent variables selected for the study can be included in employees' learning and development activities, however, appropriate metrics are to be included while incorporating HR analytics to ensure the human ROI.

4.2 Interpretation of Findings

It is evident from the result that the study throws light on a new strategy development related to incorporating HR analytics through L&D activities at CUA. The findings explain the effective accomplishment of the objectives mentioned in the introduction part as the values of all latent variables reached their significance level. HR analytics in a firm aims to make human resource decisions with the organization's overall goals and performance (Bondarouk et al., 2017). Table 2 confirms the fitness of the selected model for the study. The values of the CFA (Table 3) prove the association of each attribute to latent variables such as the significance of HR analytics on L&D to ED and ROI in the firm as the values reach their recommended value. Moreover, Table 4 confirms the regression analysis and significance level of each latent variable in the selected organization as all the values are <0.001. It clarifies that the p-value for all the factors has a significance level (<0.001) and reliability of 0.60. The hypotheses test validates the relationship of each item to their respective latent variables (L&D, ED, and ROI).

Path	Regression coefficient	t	P-value	Variance explained	Average Extracted	Variance	Composite Reliability
High-involvement work systems → ROI	0.904	25.742	<0.001	81.8			
Career opportunities → ROI	0.979	39.171	<0.001	95.8			
High productivity → ROI	1.001	65.500	<0.001	100.2	91.12		0.60
Reduced turnover → ROI	0.945	30.725	<0.001	89.3			

Table 4.
Regression Coefficient – HR analytics on L&D –ROI
Source: Data analysis

This shows that the factor loadings have statistical relevance (p>0.5). Through this analytics, managers can produce evidence in the form of organizational facts, allowing them to make decisions based on actionable insights. HR analytics can

reduce past mistakes and focus on future implications with relevant employee development metrics. Hence, it proves that the integration of HR analytics to measure the L&D can ensure the ROI factors that are identified in Part I.

Conclusion

Despite the claimed significance of HR analytics, more studies are vital to investigate business challenges and HR perspectives, especially learning needs (Coolen and IJselstein (2015). This is evident from Table 3 as convergent validity and the average validity for L&D are 0.54 and 0.59 respectively. The study proves the significance of HR analytics in talent management, leadership development, and employee retention (Carter, 2020). The significance level of the hypothesis test shows the importance of the COM model (Blumberg and Pringle, 1982; Boudreau et al., 2003) in the firm. If there is any time constraint for an in-depth analysis, this model can serve as a map for checking whether the appropriate questions are considered for the driving behavior related to business performance.

The study is a roadmap for Huselid's (2018), research on how HR analytics impacts and influences employee performance. It strengthens the view that those companies which analyze HR analytics reports and data for job designing, career development, compensation, and creativity, can lead to employee development (Fitz-enz & Matox, 2014). The alpha value confirms the internal consistency and CV as 0.57 and AVE as 0.59. Thus, the second hypothesis was accepted because the result proves the significance of incorporating the 'labor markets' model to evaluate the full set of options available to an organization related to increasing profitability (Levenson et al., 2005).

The values (AVE as 91.1 and composite reliability as 0.6) from Table 4 prove the need for variables for better decision-making toward ROI, which in turn leads to higher organizational performance (Minbaeva, 2018). Thus, the result confirms the significance of the 'organization design model' in that it can be applied to different groups of people in different roles, however, it gives more accuracy for similar roles (Galbraith,1977). Thus, the third hypothesis was accepted.

The three models (COM, labor markets, and organization design) addressed in the study bridge the gap between theory and practical implications in HR analytics.

Recommendations

The present study addresses the methods for human ROI in firms by effective HR analytics on L&D. Also, the factors to be considered by the management in expanding their tactics in capturing the full potential of the workforce. For this, HR technology in the firm needs to develop to run the reports, create dashboards, develop simulations, monitor KPIs, and perform predictive analytics. It stresses the employment relationship and long-term commitment to creating intrinsic and extrinsic factors. The cost-benefit analysis includes an alignment of the firm's goals

and objectives, how this proposal fits with the organizational needs, and the extent to which it makes a change to the organizational members.

The performance for employee development can be measured by implementing balanced scorecards, dashboards, and predictive analysis. The scorecard translates the company's strategic objectives into a set of performance measures (Kaplan & Norton, 1992). It can motivate breakthrough improvements in critical areas such as product, process, customer, and market development. Thus, it balances the external measures like operating income and internal measures like new service development.

Also, needs to include the increase or decrease in revenue, productivity/organizational performance, turnover rate, enrollment of freshmen, etc. The benefits are knowing; the extent to which the University meets the expectations of shareholders (financial perspective), delighting the customers (customer perspective, preparedness for the future (learning and growth perspective), and ways of doing the right things (internal process perspective).

The models would boost the decision-making in competency development of the workforce because many more opportunities for applying advanced statistics to diagnose HR issues will emerge from applying good analytics more broadly. So, appropriate retention strategies must be incorporated into future research as long-term planning.

Also, University needs to: prepare and prioritize plans and budgets for HR analytics in L&D; evaluate the cost of achieving the same outcomes with different approaches; analyze the effects of learning interventions. The University IT department can develop an HR analytics system to measure the delivery cost, informal coaching intervention costs, cost of learners' time, incidence rate of participants, business benefits, and organizational development initiatives.

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Appendix - II

Questionnaire

Kind attention: Please note your responses are highly appreciated. It is used exclusively for academic purposes and maintains all confidentiality.

Section I

Demographic factors

1. **Gender: Male** **2. Female**

2. **Age:**

1. 25 -35 **2. 36-45** **3. 46-55** **4. >56**

2. **Qualification:**

   a. Post-graduation **b. Other Professional courses** **c. Ph.D.**

3. **Experience:**

   a. Less than 5 years **b. 5-10 years** **c. 11-15 years** **d. more than 15 years**

Section II

Latent Variables	Related Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Learning & Development (LD)	Q1. I have enough opportunities for my competencies through skill and knowledge development. Q2. I have opportunities to work with leaders, managers, and customers at my organization.					

	Q3. I have opportunities to work in a team learning environment.
	Q4. My firm provides a shared culture and values in my organization.
ED & HR analytics (HRA)	Q5. My firm has an evidence-based platform to track L&D.
	Q6. My firm considers external factors in job design.
	Q7. My firm considers personal & professional development through L&D.
	Q8. My firm provides compensation with skill development.
	Q9. My firm gives me an opportunity for creativity.
ROI	Q10. Do you have specific policies and strategies approved and well communicated

by the top management?

Q11. I am aware of the firm's mission.

Q12. My firm has long-term plans for employee investment.

Q13. My firm motivates me through reward systems.

Q14. My firm maintains good performance appraisal and employee development methods.

Any other comments:

Thank you for your participation!

Appendix III

Demographic characteristics of the Sample

Mark	Control Variables	Category	Frequency	Share (%)
CV1	Gender	Male	65	56.0
		Female	51	43
CV2	Age	25-35	18	15.5
		36-45	42	36.2
		46-55	53	45.7
		>56	3	2.6
CV4	Qualification	Undergraduate	5	4.3
		PG & other professional programs	**66**	**56.9**
		Ph.D.	**45**	**38.8**
CV3	**Experience**	**<5 years**	**12**	**10.3**
		5-10	**45**	**38.7**
		11-15	**55**	**47.4**
		>15 years	**21**	**18.1**