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HR Analytics as Part of Managerial Innovations in the Context of Competitiveness and Sustainability

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ABSTRACT
The study's main goals were to evaluate the moderating effects of HR analytics (HRA) as part of managerial innovations in the context of organisational creativity (oc) and sustainable competitive advantage (SCA). A self-administered, online survey was conducted, intended to be completed by hr managers. We used ibm spss statistics v.20 to estimate and assess hypotheses produced from research models. The reliability of the proposed model and the validity of the idea statements were established by the utilization of factor analysis and cronbach's alpha. Regression analysis was applied to test the hypotheses. Our study adds to the body of knowledge on the role of hra in anticipating high-stakes decisions. The findings showed that businesses might increase the good influence on oc and raise the sca by making better hr-related decisions by depending on the information and predictions provided by hra. Indeed, they verified hra's moderating influence on the constructive relationships between employee training, employee rewards and incentives, organizational knowledge sharing, recruitment and selection, big data, and innovative hr practices with oc. Conversely, in order to fully realize its potential advantages, it must be viewed as a strategic tool that the hr department may use to increase the success and efficiency of its initiatives.

Keywords: SCA, IBM SPSS V.20, Cronbach's Alpha, Predictions, Big Data, HR Practices

1. INTRODUCTION

In today's dynamic business landscape, organizations are constantly seeking ways to maintain a competitive edge and drive sustainable growth. One critical factor in this pursuit is the effective management and development of human resources (Peñaflor & Avilés, 2016). Researchers have long recognized the pivotal role of human resource practices in fostering OC, which are essential for building and sustaining a competitive advantage (Gupta & Singhal, 1993). A key aspect of this relationship is the emerging field of HRA, which holds the potential to unlock valuable insights and enable more strategic decision-making in HRM (Margherita, 2022).

OC and SCA are crucial for the long-term success of businesses in today's dynamic and highly competitive environment. In this context, the role of human resource practices has gained significant attention, as they can significantly impact these outcomes. Emerging research has highlighted the potential of HRA to enhance the effectiveness of HR-related decisions and, in turn, their influence on various organizational outcomes (Heuvel & Bondarouk, 2016). HRA, which involves the systematic collection and analysis of data to inform HR decision-making, can play a critical role in enhancing the effectiveness of HR practices and their impact on OC.

For instance, HRA can help organizations identify the most effective training programs, tailor rewards and incentives to individual employee needs, and optimize recruitment and selection processes to attract and retain the most creative talent. (Heffernan et al., 2016)

The extant literature suggests that the relationship between HR practices and OC is complex and may be influenced by various contextual factors. The use of HRA can potentially moderate these relationships by providing organizations with the data-driven insights needed to fine-tune their HR practices and better align them with the organization's creative aspirations (Cai et al., 2020). Despite the growing interest in HRA, the literature on its role in the HRM-creativity relationship is still limited (Heuvel & Bondarouk, 2016). This study aims to address this gap by exploring the moderating effect of HRA on the relationships between employee training, rewards and incentives, knowledge sharing, recruitment and selection, Big data, innovative HR practices and OC.

2. OBJECTIVE OF THE STUDY

1. To identify the factors influencing the organisational creativity (OC)

2. To assess the moderating effect of hr analytics on factors influencing organisational creativity
3. To assess the impact of organisational creativity (OC) organisational sustainable competitive advantage.
4. To propose a conceptual model showing the relation with factors influencing the organisational creativity (OC) and organisational sustainable competitive advantage.

3. Literature Review and Hypotheses Development

3.1 Employee Training (TRAIN) and OC

Human resource development practices, such as employee training, have been linked to increased OC (King, 2016). By investing in the development of their workforce, organizations can enhance employees' knowledge, skills, and abilities, which can lead to the generation of novel ideas and innovative solutions. The relationship between employee training and OC has been a subject of increasing scholarly attention. (Waight, 2005) Researchers have highlighted the significance of developing employees' expertise, creative-thinking skills, and motivation as key drivers of OC. (Anderson et al., 2014). Organizations that invest in training programs aimed at enhancing these components are more likely to cultivate a culture of innovation and adaptability. (Peñaflor & Avilés, 2016)

H1: Employee Training (TRAIN) has significant positive impact on OC (CREATE)

3.2 Employee Rewards and Incentives (REWARD) and OC

The employee rewards and incentive system is one such critical factor that can significantly influence the creativity and innovation capabilities of an organization (Malik & Dabić, 2016). Effective reward and incentive programs can motivate employees, stimulate their creative thinking, and create an environment that nurtures the generation and implementation of novel ideas (Li et al., 2022). Conversely, poorly designed or misaligned reward systems can inadvertently stifle creativity and hinder the organization's ability to maintain a SCA (Müller & Ulrich, 2013). Decades of research have delved into the complex interplay between employee rewards, OC, and the pursuit of SCA. Studies have shown that the right combination of intrinsic and extrinsic rewards can positively impact employee creativity and innovation (Li et al., 2022).

Intrinsic rewards, such as autonomy, recognition, and a sense of meaningfulness, can foster intrinsic motivation, which is closely linked to creative thinking and problem-solving. On the other hand, extrinsic rewards, such as financial incentives and performance-based bonuses, can also play a role in stimulating proactive and responsive creativity, provided they are carefully designed and implemented. The key to unlocking the creativity-enhancing potential of rewards lies in striking a balance between the two types of rewards, as well as aligning them with the organization's strategic goals and the specific creative needs of different tasks and work contexts (Li et al., 2022).

H2: REWARD has significant impact on OC

3.3 Organizational Knowledge Sharing (KNOW) and OC

Organizational knowledge sharing, which involves the exchange of ideas, insights, and expertise among employees, has been identified as a crucial enabler of creativity and innovation (Ahmed & Sigamony, 2020). When employees actively share knowledge, they are exposed to diverse perspectives, enabling them to recombine existing ideas in novel ways and generate innovative solutions (Ahmed & Sigamony, 2020). As highlighted in the literature, effective knowledge sharing, particularly in informal settings facilitated by communities of practice, can enhance creativity and innovation capabilities within the firm. Knowledge sharing allows for the dissemination of innovative ideas and the improvement of team processes, which in turn fosters innovation capacity and promotes competitive advantages.

H3: KNOW has significant impact on OC

3.4 Recruitment and Selection (RECRUIT) and OC

Recruitment and selection practices have a significant positive impact on OC. Effective recruitment and selection processes can help identify and attract talented individuals who possess the skills and mindset necessary for creative problem-solving and innovation (Gill, 2021). The relationship between an organization's recruitment and selection processes and its capacity for creativity has been a subject of considerable interest in the field of organizational management. Effective talent management strategies that attract and retain highly creative individuals can be instrumental in fostering an innovative organizational culture. (Allen & Vardaman, 2017).

H4: RECRUIT has significant positive impact on OC (CREATE)

3.5 Big Data (DATA) and OC

Big Data has become a crucial component in the modern business landscape. A growing body of research

suggests that the effective utilization of Big Data can have a significant positive impact on OC, enabling firms to unlock new avenues for innovation and competitive advantage. The influx of diverse, high-volume, and rapidly changing data from a multitude of sources has opened up new opportunities for organizations to gain valuable insights and identify patterns that were previously undetectable (Vecchio et al., 2017). By harnessing the power of Big Data, companies can gain a deeper understanding of their customers, markets, and internal operations, allowing them to develop creative solutions and unique product offerings that cater to evolving customer needs. Moreover, the analysis of Big Data can inform strategic decision-making, enabling organizations to identify emerging trends, anticipate market shifts, and proactively respond to changing conditions. This, in turn, fosters an environment of innovation and creativity, as firms are empowered to explore new ideas, experiment with novel approaches, and adapt to rapidly changing circumstances (Mazzei & Noble, 2020).

One of the primary ways in which Big Data can enhance OC is through the process of collecting and storing vast amounts of consumer data (Erevelles et al., 2016). This wealth of information, gathered from diverse sources both within and outside the organization, can provide valuable insights into consumer behavior, preferences, and unmet needs. By analyzing this data, organizations can better understand their target markets and identify novel opportunities for product development, service enhancement, or even the creation of entirely new business models.

H5: DATA has significant positive impact on OC

3.6 Innovative HR Practices (HRPRACT) and OC

Prior studies have found that HR practices that foster employee autonomy, knowledge exchange, and a sense of ownership over work-related issues can stimulate individual-level innovative behaviors, which then translate to firm-level innovation performance (Fischer et al., 2019). Furthermore, organizations that develop a climate supportive of innovation are more likely to see the benefits of innovative HR practices manifested in enhanced creativity and innovation (Hussain et al., 2019).

H6: HRPRACT has significant positive impact on OC

3.7 The Moderating Effect of HR Analytics (HRA):

Organizations are increasingly recognizing the value of HRA in driving organizational performance and strategic decision-making (Levenson & Fink, 2017). As the volume and variety of data available to organizations continue to grow, the need for effective HRA has become more pressing. HRA can provide valuable insights into employee behavior, performance, and engagement, enabling organizations to make more informed decisions about their workforce (Kapoor & Kabra, 2014).

Recent research has highlighted the potential of HRA to act as a moderator between HR practices, big data, and OC (McGinty & Лылова, 2020). HRA can help organizations leverage their big data resources to develop more effective HR practices, which in turn can foster a culture of creativity and innovation within the organization (Fernández & Gallardo-Gallardo, 2020). Additionally, HRA can help organizations make more informed decisions about talent management, recruitment, and employee development, which can have a significant impact on OC.

H7: HRA moderate the relationship between TRAIN and OC

H8: HRA moderates the relationship between REWARD and OC

H9: HRA moderates the relationship between KNOW and OC

H10: HRA moderates the relationship between RECRUIT and OC

H11: HRA moderates the relationship between DATA and OC

H12: HRA moderates the relationship between HRPRACT) and OC

3.8 Organisational Creativity (OC) and Sustainable Competitive advantage (SCA)

Creativity and innovation are inextricably linked, with creativity serving as the foundation for innovative practices and solutions (Thawabieh & Saleem, 2016). When organizations are able to tap into the creative potential of their employees, they can develop unique products, services, and business models that set them apart from the competition (Centárová, 2020). This not only allows them to meet the changing needs and preferences of customers, but also helps them to revitalize and add value to their existing offerings. The relationship between OC and competitive advantage is particularly salient in the Gulf Cooperation Council region, where businesses are increasingly seeking to differentiate themselves in an increasingly crowded and competitive marketplace (Thawabieh & Saleem, 2016) Creativity can help organizations in the GCC to build a SCA that ensures long-term organizational success.

H13: OC has significant positive impact on SCA

4. CONCEPTUAL MODEL

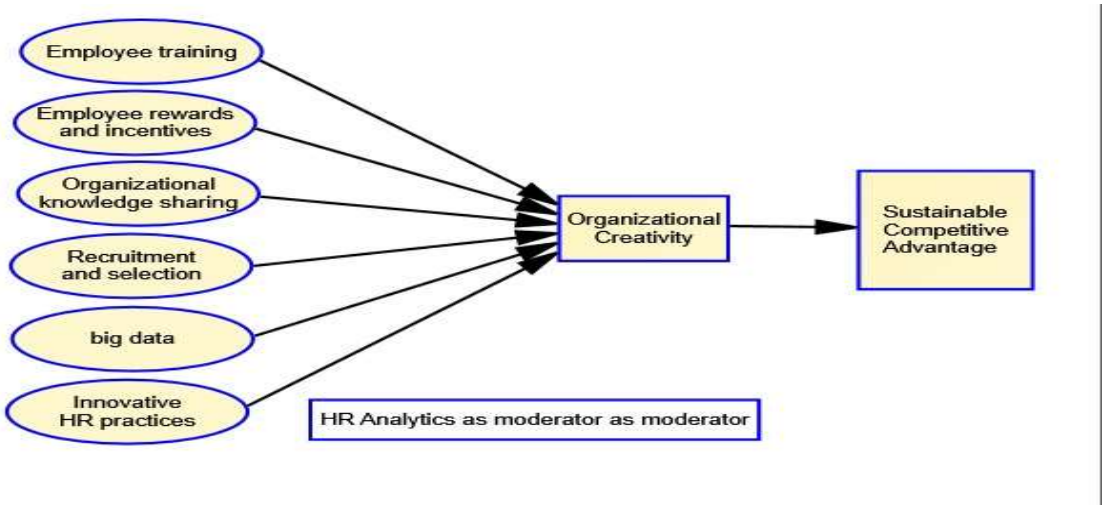

Figure1: Conceptual model showing the relationship of factors influencing OC and SCA5. Research Methodology:

5.1 Survey design

This study employs a quantitative method with the goal of determining the causal relationship between the variables. We OCd an online survey that is self-administered and designed for HR managers to complete, as they are the organizational figures most likely to have the data required for the study. The study was carried out by the authors during a six-month period, from January to June 2024. The questionnaires were to be completed by the respondents within two weeks of each other. Purposive random sampling was the method of sampling that was employed. A web-based survey was OCd to evaluate the study model and its associated hypotheses. Respondents scored each issue on a five-point Likert scale ranging from "1: strongly disagree" to "5: strongly agree."

5.2 Data Collection and Analysis Method

For this analysis, 450 samples in total were used. Sorting revealed that 378 HR experts provided the sample that was gathered and fully responded to. IBM SPSS Statistics v.20 was utilized to evaluate and estimate hypotheses derived from research models. Factor analysis, regression analysis, test hypotheses and Cronbach's alpha were used to determine the validity of the idea statements and the reliability of the suggested model. The survey was divided into three sections: Section A of the report described the respondents' gender, age range, income, experience, and level of education. The questionnaire also attempted to gather information as a major source for evaluating the constructs of the model's hypotheses. The questionnaire was intended to be completed by respondents, who were upper-level managers, in order to boost the validity of the information gathered.

6. RESULTS AND ANALYSIS

6.1 Demographic profile

The respondent's demographic features were evaluated by the application of descriptive demographic statistics. In the end, 378 of the 450 questionnaires that were given to responders were discovered to be fully completed and error-free. 84% of the responses are judged to be of good quality after further verification. Table 1 shows the sociodemographic information for each individual. In all, 378 respondents, of whom 314 (83.1%) were men and 64 (16.9%) were women. Of the men, 107 (28.3%) were in their 30s and 40s, and 154 (40.7%) held a professional degree, with 11-20 years of experience and earning about 30,000 rupees.

Table 1. Descriptive Statistics of Demographic Profile

		Frequency	Valid %
Gender profile	Male	314	83.1
	Female	64	16.9
Age profile	20-29 years	49	13
	30-39 years	107	28.3
	40-49 years	71	18.8
	50-59 years	92	24.3
	60 years and above	59	15.6

Highest education level	Bachelor Degree	48	12.7
	Masters Degree	97	25.7
	Professional Education	154	40.7
	Other	79	20.9
Working experience (in years)	Less than 10	95	25.1
	11 to 20	191	50.5
	21 to 30	75	19.8
	31 to 40	17	4.5
Income	10,000 – 20, 000	82	21.7
	20001 – 30,000	126	33.3
	30001 – 40,000	137	36.2
	More than 40,000	33	8.7

6.2 Exploratory Factor and Reliability Analysis

The complying components' importance was assessed using the EFA. The experiment's threshold is set at a factor loading of 0.50. Based on these results, factor analysis seems to be a suitable technique to collect this information. In the end, every element that had factor loadings higher than 0.5 was taken into account. If a scale meets the 0.70 Chronbach's Alpha requirement, it is generally considered internally consistent. This study's Cronbach's alpha threshold was set at 0.7.

Table 2. Results of Exploratory Factor Analysis

Variables	Cronbach alpha	Statement	Factor loadings	KMO Measure of Sample Adequacy (>0.5)	Bartlett's Test of Sphericity		Items confirmed	Items dropped	Cum % of loading
					Chi Square	Sig. (<.10)			
Employee Training (TRAIN)	0.964	TRAIN-1	0.169	0.852	1911.432	0.000	4	1	72.746
		TRAIN-2	0.943						
		TRAIN-3	0.953						
		TRAIN-4	0.966						
		TRAIN-5	0.936						
Employee Rewards and Incentives (REWARD)	0.912	REWARD-1	0.900	0.855	1445.057	0.000	5	0	74.140
		REWARD-2	0.920						
		REWARD-3	0.917						
		REWARD-4	0.830						
		REWARD-5	0.722						
Organizational Knowledge Sharing (KNOW)	0.862	KNOW-1	0.664	0.710	986.755	0.000	4	0	70.992
		KNOW-2	0.911						
		KNOW-3	0.949						
		KNOW-4	0.818						
Recruitment and Selection (RECRUIT)	0.863	RECRUIT-1	0.816	0.718	959.749	0.000	4	0	71.170
		RECRUIT-2	0.944						
		RECRUIT-3	0.908						
		RECRUIT-4	0.682						
Big Data (DATA)	0.964	DATA-1	0.188	0.849	1937.931	0.000	4	1	72.816
		DATA-2	0.947						
		DATA-3	0.953						
		DATA-4	0.970						
		DATA-5	0.927						
Innovative HR Practices (HRPRACT)	0.729	HRPRACT-1	0.657	0.725	315.637	0.000	4	1	44.457
		HRPRACT-2	0.774						
		HRPRACT-3	0.807						
		HRPRACT-4	0.146						
		HRPRACT-5	0.720						

Organizational Creativity (OC)	0.966	OC-1	0.192	0.860	1945.553	0.000	4	1	73.150
		OC -2	0.946						
		OC -3	0.955						
		OC-4	0.967						
		OC-5	0.938						
Sustainable Competitive Advantage (SCA)	0.915	SCA-1	0.904	0.859	1471.466	0.000	5	0	74.690
		SCA -2	0.922						
		SCA -3	0.918						
		SCA -4	0.833						
		SCA -5	0.729						
HR Analytics (HRA)	0.868	HRA-1	0.683	0.719	1007.782	0.000	4	0	71.893
		HRA-2	0.912						
		HRA-3	0.949						
		HRA-4	0.822						

6.3 Correlation Analysis

The independent variable correlation analysis's findings indicate that there seems to be a substantial relationship between each variable. There is a strong correlation between the independent and dependent variables when all variables are taken into account (Table 3). The variables measuring Recruitment and Selection (RECRUIT) and Innovative HR Practices (HRPRACT) had the least significant association (0.725), while the ones assessing Employee Training (TRAIN) and Big Data (DATA) had the highest level of correlation (0.997).

Table 3: Correlations

	Train	Reward	Know	Recruit	Data	Hrpract	Oc	Sca	Hra
Train	1								
Reward	.942**	1							
Know	.916**	.882**	1						
Recruit	.838**	.805**	.922**	1					
Data	.997**	.937**	.918**	.843**	1				
Hrpract	.810**	.783**	.746**	.725**	.816**	1			
Oc	.987**	.921**	.910**	.858**	.987**	.835**	1		
Sca	.938**	.981**	.890**	.841**	.938**	.824**	.947**	1	
Hra	.898**	.854**	.984**	.936**	.902**	.767**	.919**	.894**	1
****. Correlation is significant at the 0.01 level (2-tailed).**									

6.4 Regression Analysis

The relationship between the independent and dependent variables was determined using stepwise regression analysis. The study's main goals were to evaluate the moderating effects of HR Analytics as part of Managerial Innovations in the context of Competitiveness and Sustainability.

6.4.1 Organizational Creativity (OC) as dependent variable

Regression analysis was used to determine the predictor-criterion relationship between the independent and dependent variables. Tables 4a and 4b showed that the elements under investigation are very significant predictors of the Organizational Creativity (OC) to continue using them using step-wise regression analysis. With R square of 0.982, Table 4a demonstrates that these characteristics explain 98.20% of Organizational Creativity (OC). Table 4b displays the regression model's ANOVA values, which demonstrate validation at a 95% confidence level. The beta value of 0.813, which accurately reflects their influence on the Organizational Creativity (OC), is reported in the coefficient summary in Table 4c.

Table 4a: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.991[a]	.982	.982	.13553
a. Predictors: (Constant), HRPRACT, RECRUIT, REWARD, KNOW, DATA, TRAIN				

Table 4b: ANOVA analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	380.952	6	63.492	3456.532	.000[b]
	Residual	6.815	371	.018		

	Total	387.767	377			
a. Dependent Variable: OC						
b. Predictors: (Constant), HRPRACT, RECRUIT, REWARD, KNOW, DATA, TRAIN						

Table 4c: Regression coefficients table for dependent variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.115	.030		-3.819	.000
	TRAIN	.823	.100	.813	8.234	.000
	REWARD	-.112	.024	-.099	-4.657	.000
	KNOW	-.101	.028	-.088	-3.577	.000
	RECRUIT	.149	.020	.136	7.495	.000
	DATA	.167	.098	.165	1.705	.089
	HRPRACT	.113	.016	.086	6.996	.000
a. Dependent Variable: OC						

6.4.2 Impact of Organizational Creativity (OC) on SCA

Using stepwise regression analysis, the predictor-criterion link between the independent and dependent variables was discovered. As tables 5a and 5b demonstrate, Organizational Creativity (OC) is a significant predictor of the Sustainable Sustainable Competitive Advantage (SCA). Table 5a shows that these factors explain 89.7% of the Sustainable Sustainable Competitive Advantage (SCA), with R square of 0.897. Table 5b displays the regression model's ANOVA values, which demonstrate validation at a 95% confidence level. The component's beta value, which accurately reflects their influence, is 0.947, as shown by the coefficient summary in Table 5c.

Table 5a: Regression analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.947[a]	.897	.897	.29000
a. Predictors: (Constant), OC				

Table 5b: ANOVA analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	275.462	1	275.462	3275.417	.000[b]
	Residual	31.622	376	.084		
	Total	307.084	377			
a. Dependent Variable: SCA						
b. Predictors: (Constant), OC						

Table 5c: Regression coefficients table for dependent variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.375	.044		8.497	.000
	OC	.843	.015	.947	57.231	.000
a. Dependent Variable: SCA						

6.4.3 Moderating impact of HR Analytics (HRA) between selected influencing variables and Organizational Creativity (OC)

To investigate the relationship between variables, Zscore values for each variable were produced. New variables, denoted as interactions IA1 through IA6, are then OCd by computing the interaction between all independent factors and HR Analytics (HRA).

We performed a regression analysis using the dependent variable (OC) and the additional interacting independent variables (IA1 – IA6). The interacting qualities are a strong predictor of the Organizational Creativity (OC), as demonstrated by Tables 6a and 6b, which present the results of step-wise regression analysis. 88.70% of the Organizational Creativity (OC) is attributed to these variables, according to Table 6's R square value of 0.636. The 95% confidence level validation of the regression model is shown by the ANOVA values in Table 6b. The beta values are, respectively, 0.754 and 0.253 based on the coefficient summary shown in Table 6c. These principles accurately depict how they affect the Organizational Creativity (OC).

Table 6a: Regression analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.942[a]	.887	.885	.34346
a. Predictors: (Constant), IA6, IA4, IA2, IA5, IA3, IA1				

Table 6b: ANOVA analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	344.003	6	57.334	486.029	.000[b]
	Residual	43.765	371	.118		
	Total	387.767	377			
a. Dependent Variable: OC						
b. Predictors: (Constant), IA6, IA4, IA2, IA5, IA3, IA1						

Table 6c: Regression coefficients table for dependent variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	2.580	.018		140.766	.000
	IA1	.231	.060	.754	3.843	.000
	IA2	-.017	.016	-.054	-1.015	.311
	IA3	-.042	.025	-.133	-1.653	.099
	IA4	.081	.020	.253	4.036	.000
	IA5	.025	.059	.080	.418	.676
	IA6	.022	.011	.069	1.931	.054
a. Dependent Variable: OC						

6.5 Results of Hypotheses Testing

Table 8 lists the 13 initial hypotheses put forth by the conceptual research framework, of which 9 have been accepted and the remaining 4 rejected.

Table 7: Summary of Hypotheses Testing

Hy. No.	Independent Variables	Dependent Variables	R-Square	Beta Coefficient	t-value	Sig Value	Status of Hypotheses
H1	Employee Training (TRAIN)	Organizational Creativity (OC)	0.982	.813	8.234	.000	Accepted
H2	Employee Rewards and Incentives (REWARD)			-.099	-4.657	.000	Accepted
H3	Organizational Knowledge Sharing (KNOW)			-.088	-3.577	.000	Accepted
H4	Recruitment and Selection (RECRUIT)			.136	7.495	.000	Accepted
H5	Big Data (DATA)			.165	1.705	.089	Rejected
H6	Innovative HR Practices (HRPRACT)			.086	6.996	.000	Accepted
H7	IA1 (TRAIN *HRA)	Organizational Creativity (OC)	0.887	.754	3.843	.000	Accepted
H8	IA2 (REWARD *HRA)			-.054	-1.015	.311	Rejected
H9	IA3 (KNOW * HRA)			-.133	-1.653	.099	Rejected
H10	IA4 (RECRUIT * HRA)			.253	4.036	.000	Accepted
H11	IA5 (DATA * HRA)			.080	.418	.676	Rejected
H12	IA6			.069	1.931	.054	Accepted

	(HRPRACT * HRA)						
H13	Organizational Creativity (OC)	Competitive Advantage (SCA)	0.897	.947	57.231	.000	Accepted

7. DISCUSSIONS

Employee Training (TRAIN) and Organizational Creativity (OC) were found to be considerably positively correlated with HR Analytics (HRA) (H1 and H7; beta coefficient = 0.813 and 0.754). This is consistent with the most current research on the subject. According to Chaubey et al. (2022), giving workers the right training will encourage them to come up with more original solutions to problems relating to their jobs. The meta-analytic analysis of the subject by Sio and Lortie-Forgues (2024) likewise supported the general beneficial benefits of training on organizational creativity. The empirical analysis of hypotheses 2 and 8 revealed a substantial negative correlation between Employee Rewards and Incentives (REWARD) and Organizational Creativity (OC) (beta coefficient = - 0.099), but not accepted (H8, p = 0.311, beta coefficient = -0.054) with HR Analytics (HRA), acting as a moderating factor. Nevertheless, the analysis did not corroborate our eight hypotheses; that is, we were unable to show that offering incentives and rewards to staff members would have a favorable impact on organizational innovation. As they can be viewed as an externally imposed limitation, some earlier researchers Yoon et al. (2024) have already rejected the positive effects of material rewards on organizational innovation (Amabile et al., 2018). Studies on the detrimental effects of extrinsic rewards on creativity, according to Di Prima et al. (2024), can be categorized under a "cognitive perspective" that has developed over the years based on a number of theories, including the over-justification hypothesis, cognitive evaluation theory, and intrinsic motivation theory.

An independent study of the relationship between Organizational Knowledge Sharing (KNOW) and Organizational Creativity (OC) found a significant negative correlation between the two concepts. Hypothesis 3 (beta coefficient = - 0.088) is supported by the results, but not under the influence of HR Analytics (HRA) (H9, p = 0.099; beta coefficient = -0.133). It has also been extensively shown that sharing of knowledge and creativity are related. However, the majority of research on the subject concentrated on the creativity of employees (Nguyen et al., 2024). Nonetheless, a small number of studies, such Li et al. (2022) that examined creativity at the organizational level also show a favorable correlation. Significant findings (hypotheses 4 and 10) indicate that when combined with HR Analytics (HRA), Recruitment and Selection (RECRUIT) does, in fact, significantly increase Organizational Creativity (OC) (beta coefficient = 0.136 and 0.254). In terms of hiring and selection, Song (2018) discovered that establishing a uniform assessment system aimed at identifying it in new hires was able to enhance organizational creativity in the end.

Ogbeibu et al. (2020), adopting an environmental sustainability approach, showed that effective recruitment and selection practices were positively correlated with organizational innovation. The empirical study of hypotheses 5 and 11, did not show a significant correlation between Big Data (DATA) and Organizational Creativity (OC), under the influence of HR Analytics (HRA) (p = 0.089 and 0.676). HR analytics face difficulties because organizations have a lot of data that is difficult to collect, handle, and store. Tomar & Gaur (2020) state that the HR analytics tool generates conclusions based on the data that is available, but if the data is of low quality, the results could not be what was expected. After hypotheses 6 and 12 were empirically explored, a significant positive relationship between Innovative HR Practices (HRPRACT) and Organizational Creativity (OC) was discovered, under the influence of HR Analytics (HRA) (beta coefficient = 0.086 and 0.069). Ikhide et al. (2022) have conducted an empirical study on the impact of creative HR practices on creativity. They have also made a contribution to the HR literature by indicating that HR analytics can have a positive effect on organizational outcomes, even in unique situations like organizational creativity. After hypotheses 13 were empirically explored, a significant positive relationship between Organizational Creativity (OC) and Sustainable Competitive Advantage (SCA) was discovered (beta coefficient = 0.947). Additionally, organizational creativity is a part of the managerial process, which helps a company grow and gain a Competitive edge (Benea-Popuşoi & Duca, 2022).

8. CONCLUSION

Our work adds to the body of knowledge on the influence of HR analytics in projecting high-stakes decisions. In actuality, empirical study on the topic was still lacking, despite the fact that a number of studies indicated the potential for enhancing high stakes decision-making regarding businesses' workforce by depending on HR analytics' forecasting. Nonetheless, our findings showed that businesses might enhance the efficacy of their HR-related decisions, boosting their positive influence on organizational innovation and lowering the chance of making a mistake, by depending on the knowledge and predictions provided by HR analytics. Given that these are essentially high-stakes choices and that organizational creativity has been shown to be a reliable indicator of an organization's capacity for innovation and, subsequently, of its competitiveness, our study fills a significant gap in the literature. Additionally, we improved upon earlier research that generally only looked at the direct

impact of HR analytics on overall organizational performance.

9. FUTURE PROSPECTS AND LIMITATIONS

Since our sample consisted solely of HR managers from various organizations, future research could duplicate this study in other contexts as well. It is possible that cultural factors, such as the way in which incentives and rewards help or impede organizational creativity, had an impact on the replies. Subsequent studies on the subject ought to confirm whether our findings hold true in various cultural, political, and geographic contexts.

REFERENCES

Ahmed, H., & Sigamony, C. (2020, June 30). Effect of Employee Creativity on Project Performance with the Mediating Role of Knowledge Sharing and Moderating Role of Openness to Experience., V(II), 137-148. https://doi.org/10.31703/gssr.2020(v-ii).13

Allen, D G., & Vardaman, J M. (2017, March 21). Recruitment and Retention Across Cultures. Annual Reviews, 4(1), 153-181. https://doi.org/10.1146/annurev-orgpsych-032516-113100

Amabile, T.M., Amabile, T.M., Collins, M.A., Conti, R., Phillips, E., Picariello, M., Ruscio, J. and Whitney, D. (2018). Creativity in Context: Update to the Social Psychology of Creativity, 1st ed. Routledge. https://doi.org/10.4324/9780429501234.

Anderson, N., Potočnik, K., & Zhou, J. (2014, March 17). Innovation and Creativity in Organizations. SAGE Publishing, 40(5), 1297-1333. https://doi.org/10.1177/0149206314527128

Benea-Popuşoi, E. & Duca, S. (2022). The development of creativity skills and formation of creative human capital in the knowledge economy: Theoretical benchmarks. In G. Belostecinic (Ed.), 30 years of economic reforms in the Republic of Moldova: Economic progress via innovation and competitiveness (Vol. 2, pp. 154–159). Moldova: Academy of Economic Studies.

Cai, W., Khapova, S N., Bossink, B., Lysova, E I., & Yuan, J. (2020, February 6). Optimizing Employee Creativity in the Digital Era: Uncovering the Interactional Effects of Abilities, Motivations, and Opportunities. Multidisciplinary Digital Publishing Institute, 17(3), 1038-1038. https://doi.org/10.3390/ijerph17031038

Centárová, J. (2020, January 1). Creative economy as a tool of competitiveness. EDP Sciences, 83, 01007-01007. https://doi.org/10.1051/shsconf/20208301007

Di Prima, C., Cepel, M., Kotaskova, A. and Ferraris, A. (2024). Help me help you: How HR analytics forecasts foster organizational creativity. Technological Forecasting & Social Change, 206, 123540.

Erevelles, S., Fukawa, N., & E.Swayne, L. (2016, February 1). Big Data consumer analytics and the transformation of marketing. Elsevier BV, 69(2), 897-904. https://doi.org/10.1016/j.jbusres.2015.07.001

Fischer, C., Malycha, C P., & Schafmann, E. (2019, February 4). The Influence of Intrinsic Motivation and Synergistic Extrinsic Motivators on Creativity and Innovation. Frontiers Media, 10. https://doi.org/10.3389/fpsyg.2019.00137

Gupta, A K., & Singhal, A. (1993, May 1). Managing Human Resources for Innovation and Creativity. Taylor & Francis, 36(3), 41-48. https://doi.org/10.1080/08956308.1993.11670902

Heffernan, M., Harney, B., Cafferkey, K., & Dundon, T. (2016, January 1). Exploring the HRM-performance relationship: the role of creativity climate andstrategy. http://doras.dcu.ie/23111/

Heuvel, S V D., & Bondarouk, T. (2016, January 1). The rise (and fall?) of HR Analytics: a study into the future application, value, structure, and system support. https://research.utwente.nl/en/publications/the-rise-and-fall-of-hr-analytics-a-study-into-the-future-applica-2

Hussain, S., Miao, X., Waheed, S., Ahmad, N., & Majeed, A. (2019, January 24). How New HRM Practices, Organizational Innovation, and Innovative Climate Affect the Innovation Performance in the IT Industry: A Moderated-Mediation Analysis. Multidisciplinary Digital Publishing Institute, 11(3), 621-621. https://doi.org/10.3390/su11030621

Ikhide, J.E., Timur, A.T. and Ogunmokun, O.A. (2022). A balanced perspective on the affordance of a gamified HRM system for employees' creative performance. PR. https://doi.org/10.1108/PR-01-2021-0062.

Kapoor, B., & Kabra, Y. (2014, January 1). Current and Future Trends in Human Resources Analytics Adoption. IGI Global, 16(1), 50-59. https://doi.org/10.4018/jcit.2014010105

King, K G. (2016, November 20). Data Analytics in Human Resources. SAGE Publishing, 15(4), 487-495.

https://doi.org/10.1177/1534484316675818

Li, N., Yan, Y., Yang, Y. and Gu, A. (2022). Artificial Intelligence Capability and Organizational Creativity: The Role of Knowledge Sharing and Organizational Cohesion. Front. Psychol., 13, 845277 https://doi.org/10.3389/fpsyg.2022.845277.

Malik, M A R., & Dabić, M. (2016, August 29). Rewards and Creativity: Past, Present, and Future. Wiley, 66(2), 290-325. https://doi.org/10.1111/apps.12080

Margherita, A. (2022, June 1). Human resources analytics: A systematization of research topics and directions for future research. Elsevier BV, 32(2), 100795-100795. https://doi.org/10.1016/j.hrmr.2020.100795

Mazzei, M J., & Noble, D W. (2020, March 4). Big Data and Strategy: Theoretical Foundations and New Opportunities. IntechOpen. https://doi.org/10.5772/intechopen.84819

Müller, S D., & Ulrich, F. (2013, January 1). Creativity and Information Systems in a Hypercompetitive Environment: A Literature Review. Association for Information Systems, 32. https://doi.org/10.17705/1cais.03207

Nguyen, M., Sharma, P. and Malik, A. (2024). Leadership styles and employee creativity: the interactive impact of online knowledge sharing and organizational innovation. JKM, 28, 631–650. https://doi.org/10.1108/JKM-01-2023-0014.

Ogbeibu, S., Emelifeonwu, J., Senadjki, A., Gaskin, J. and Kaivo-oja, J. (2020). Technological turbulence and greening of team creativity, product innovation, and human resource management: Implications for sustainability. Journal of Cleaner Production, 244, 118703. https://doi.org/10.1016/j.jclepro.2019.118703.

Peñaflor, S S., & Avilés, M H. (2016, September 5). Los recursos humanos bajo el enfoque de la teoría de los recursos y capacidades. Military University Nueva Granada, 24(2). https://doi.org/10.18359/rfce.2216

Sio, U.N. and Lortie-Forgues, H. (2024). The impact of creativity training on creative performance: A meta-analytic review and critical evaluation of 5 decades of creativity training studies. Psychological Bulletin. https://doi.org/10.1037/ bul0000432.

Song, C.H. (2018). On the relationship between creativity and standardisation: evidence from a qualitative study on the introduction of standardised evaluation framework in recruitment. Technology Analysis & Strategic Management, 30, 825–837. https:// doi.org/10.1080/09537325.2017.1380791.

Thawabieh, D F A., & Saleem, M Y. (2016, January 1). Organizational Creativity and Competitive Advantage: A GCC Perspective. OMICS Publishing Group, 5(4). https://doi.org/10.4172/2162-6359.1000355