

**HR METRICS AND ANALYTICS FOR JOIE-GLAM
(E-COMMERCE INDUSTRY)**

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1. Introduction to the Company – Joie-Glam Fashion Store

Joie-Glam is a global online fashion retailer renowned for its extensive collection of clothing, footwear, and accessories. Their curated collections span across a diverse range of styles, from timeless classics to cutting-edge trends. With over 10,000 fashion items, we serve customers in 50+ countries. Their commitment to sustainability and 24/7 customer support ensures a secure and stylish shopping experience. Joie-Glam employs advanced encryption technology to guarantee secure online transactions, safeguarding customer personal and payment information.

Mission: To provide an exclusive range of fashion and lifestyle choices that empower individuals to express their unique style.

Vision: To become the preferred online destination, redefining fashion shopping with seamless experiences and trendsetting collections.

Focus: Customer Intimacy



2. PROJECT SUMMARY

1.1. Project Objective

The objective of this project is to analyze the current state of Joie-Glam, identify key areas for improvement, and propose strategic Human Resources (HR) initiatives that will empower Joie-Glam to achieve its business objectives.

1.2. Scope of Project

- Findings and Joie-Glam strategy map
- High level guidelines to carry the following HR improvements and initiatives and suggested metrics to use:
 - Culture
 - Talent Management
 - Motivation of Talent
 - Retention of Employees
 - Recruitment
 - Performance Management
 - Learning and Development
 - Diversity
- Operational analytics
- Predictive analytics

3. FINDINGS AND STRATEGY MAP

3.1 FINDINGS

Joie-Glam has a diverse and extensive collection of fashion items, including clothing, footwear, and accessories. This comprehensive product range caters to a wide range of customer preferences and needs, contributing to the store's competitive advantage. It serves customers in more than 50 countries, showcasing its global presence and appeal. The international customer base demonstrates the brand's capacity to satisfy the fashion lovers worldwide, indicating their potential for even more growth in the future.

This indicates that Joie-Glam places a high emphasis on "**Customer Intimacy**" as a core value discipline.

Companies usually prefer third party vendors for this nature of business. Joie-Glam puts great emphasis on authenticity and confidentiality. The company deals with confidential and sensitive data which needs to be dealt with a lot of care. Joie-Glam employs advanced encryption technology to secure online transactions, safeguarding customer personal and payment information. This emphasis on security enhances **customer trust and confidence** in the online shopping experience.

Joie-Glam's recycling and trade-in programs actively promote responsible disposal of old clothing and accessories. These initiatives align with environmental concerns and establish the brand as a **responsible fashion leader** in the society.

While Joie-Glam maintains a **straightforward induction and onboarding process**, it allows the HR team to focus on introducing various aspects of the process effectively. However, since new joiners may not be well-versed in the fashion industry, considerable effort is invested in their orientation and briefing. This underscores Joie-Glam as a unique provider within the fashion retail sector, attracting significant interest from other companies in the industry.

The **training and development** program at Joie-Glam Online Fashion Store is designed to empower new hires with the knowledge and skills necessary to excel in their roles and provide an exceptional shopping experience to valued customers. The company firmly believes that well-trained and motivated employees are essential to its success in the dynamic fashion retail industry.

Joie-Glam collaborates with numerous corporate clients, offering bulk purchasing options and exclusive discounts. These partnerships underscore the **brand's adaptability** to the needs of both individual consumers and corporate entities.

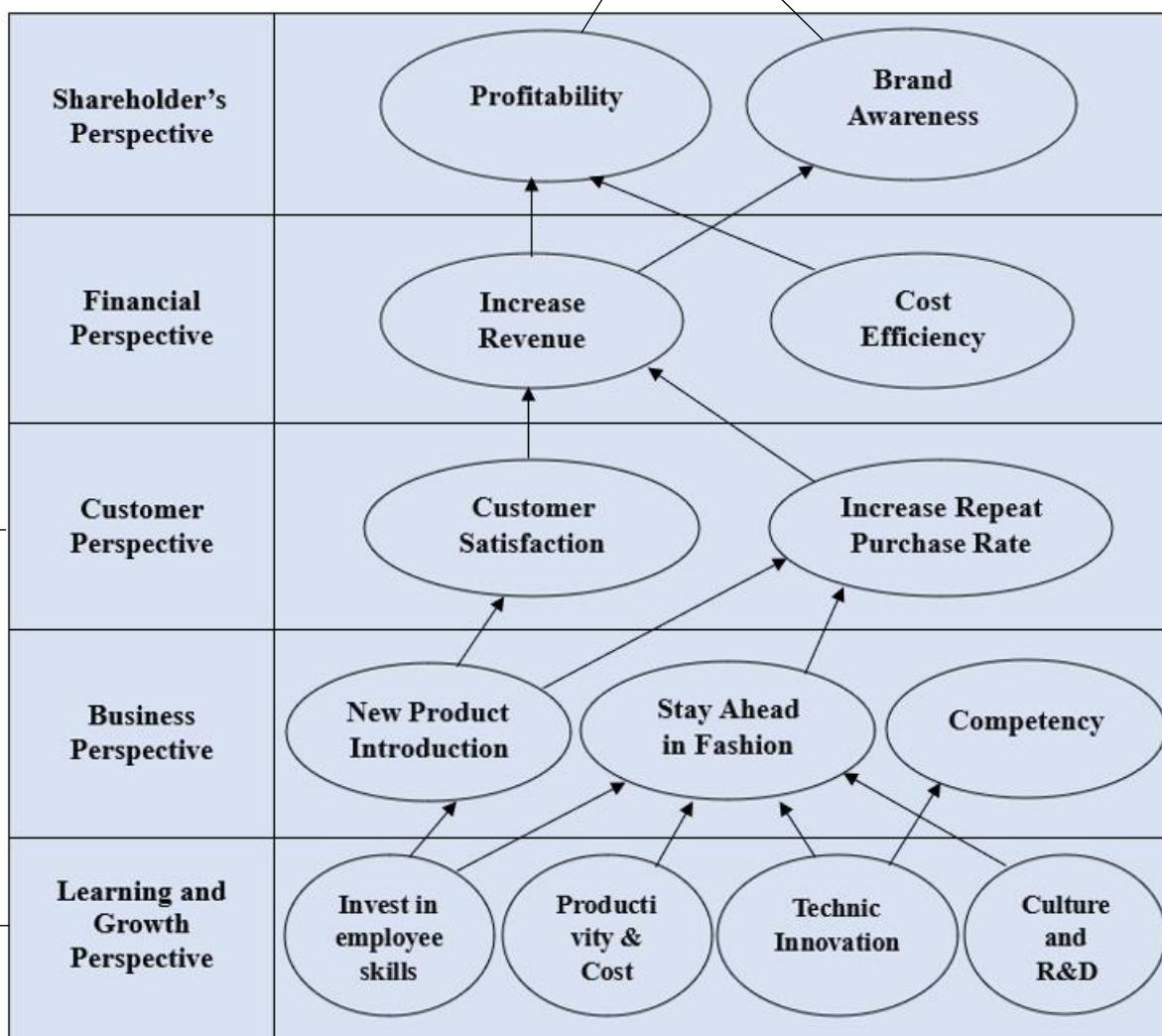
3.2 STRATEGY MAP:

This strategic map serves as a guiding framework, ensuring that the business remain aligned with the mission and focused on delivering exceptional fashion services while maintaining the highest standards of confidentiality and ethics.

The strategic map of Joie-Glam is a visual representation of their mission to provide exceptional fashion services to customers while upholding the highest standards of confidentiality.

Please review the proposed strategy map (3.2.1) for Joie-Glam on the following page.

“Enhancing brand awareness through targeted marketing strategies and delivering exceptional customer experiences is poised to drive Joie-Glam's profitability and growth in the competitive online fashion industry.”



“Driving commitment to delivering top-notch fashion and service excellence.”

“A relentless pursuit of innovation, trend-spotting, and delivering fresh, cutting-edge styles to our valued customers.”

“An investment for future, providing a dynamic workforce equipped to excel in the ever-evolving fashion landscape.”

3.2.1: JOIE-GLAM STRATEGY MAP

4. HR OBJECTIVES WITH KEY QUANTIFIABLE MEASURES

Joie-Glam Fashion Store has identified its HR focus areas; however, they may benefit from additional initiatives and enhancements in order to achieve their desired objectives.

4.1 CULTURE

Culture in a work environment refers to the shared values, beliefs, behaviors, and attitudes that define the atmosphere and interactions within an organization.

Joie-Glam Fashion Store needs to make its workplace feel more like a family by sharing its beliefs and values with employees. This will make everyone feel more comfortable and happier at work. It's also important to make sure that everyone knows and understands these values. But changing how things are done at work should be done slowly and carefully.

4.1.1 Enhancing the Business Perspective and Learning & Growth Perspective: Culture Metrics for Joie-Glam Online Fashion Store.

Objective	HR Measure	Target	Initiative
Enhance employee growth and development	Offer professional development opportunities	Increase employee skill sets by 30%	Launch a mentorship program for career growth
Actively fostering diversity within workplaces	Diversity Index (DI)	Increase DI by 10% within one year	Implement diversity training programs for employees
	Employee feedback on diversity and inclusion	Achieve a 90% positive feedback rate	Establish employee resource groups focused on diversity
	Diversity hiring rate	Hire a minimum of 25% diverse talent	Revise recruitment strategies to attract diverse candidates
Prioritizing ethical practices	Compliance with ethical standards and regulations	Achieve 100% compliance	Conduct regular ethics training and awareness programs

	Employee ethical behaviour	Increase ethical behaviour by 15%	Reward employees for demonstrating ethical practices
Extending support to local artisans	Percentage of products sourced locally	Source 40% of products locally	Collaborate with local artisans and offer fair contracts
	Artisan satisfaction rating	Maintain a satisfaction rating of 85%	Organize workshops and training for local artisans
Encouraging and motivating sustainable fashion initiatives	Participation in sustainability projects	Achieve 80% employee participation	Launch sustainability challenges and recognition programs
	Sustainable fashion ideas implemented	Implement at least 50% of proposed ideas	Provide resources for sustainable fashion innovation

4.1.2 Insights from Operational Analysis:

- The overall culture satisfaction of the employees is 75.13.
- The culture satisfaction among the employees, analyzing by demographics showcases that
 - The female employees have higher culture satisfaction in the organization, 75.44.
 - Department-wise, the IT department has the highest satisfaction of 76.42
 - Position-wise, the Basic level employees have the highest satisfaction of 75.77

4.1.3 Joie-Glam track the following Key Culture Metrics:

4.1.1. Culture Satisfaction Rating:

Culture Satisfaction Rating for Joie-Glam Fashion Store is a crucial metric that measures how satisfied our employees are with their working experience. It reflects the overall happiness and contentment of our environment, which is vital for business success. By consistently monitoring and improving this rating, we can ensure that our employees receive the best service and benefits, ultimately fostering loyalty and driving growth.

4.1.2 Employee Engagement and Satisfaction:

Maintaining high levels of employee satisfaction and engagement (above 85%) is crucial for a positive work environment and increased productivity.

4.1.3 Diversity and Inclusion:

Improving the Diversity Index by 10% within one year demonstrates a commitment to a diverse and innovative workforce, which can lead to better decision-making and customer relations.

4.2 COMPETENCY:

Competency analysis is a crucial component of human resource management that assesses the skills, knowledge, and capabilities of employees. In the context of Joie-Glam Fashion Store, two common approaches for competency analysis are HCRI (Human Capital Readiness Index) and BARS (Behaviorally Anchored Rating Scales).

HCRI (Human Capital Readiness Index):

- HCRI is a strategic tool that helps Joie-Glam assess the readiness of its human capital to meet organizational goals and challenges.
- It evaluates various aspects such as skills, experience, and qualifications of employees, providing insights into the overall competency level of the workforce.
- Joie-Glam can use HCRI to identify competency gaps, plan training and development programs, and make informed decisions regarding talent management and recruitment.

BARS (Behaviorally Anchored Rating Scales):

- BARS is a method for evaluating employee competencies based on specific, observable behaviors and performance indicators.
- It allows Joie-Glam to create a structured framework for assessing competencies, making performance evaluations more objective and consistent.
- By using BARS, Joie-Glam can provide employees with clear expectations and guidance on how to demonstrate desired competencies in their roles.

4.2.1 Enhancing the Business and Learning and Growth Perspective: Competency Metrics for Joie-Glam Fashion Store.

Objective	HR Measure	Target	Initiative
Enhance Human Capital Readiness (HCRI)	Current competency of the employee in the function/Competencies required for the function	Improve HCRI to 92%	Continuous support and encouragement
BARS	Current competency level of the employee	Level 4 with 40%, Level 3 with 30%, Level 2 with 30%	Encouraging and rendering financial support to achieve the Level 4 specified in BARS
Achieve Customer-Centric Approach	Consistently provides excellent customer service addressing customer issues with efficiency and effectiveness.	80% staff at Level 3 and above	Training and workshops to enhance customer service skills
Increase Sales	Sales Performance Evaluation with emerging industry trends and technologies.	10% growth in quarterly sales and 70% staffs at Level 3 and above	Sales Training Program
Optimize Inventory Management	Increasing inventory accuracy	Achieve a turnover ratio of 5	Inventory Management Software updation.
Enhance Product Quality	Quality Control Evaluation and frequent testing	Reduce returns rate to below 2%	Quality Control Plans and Procedures
Encourage Collaboration and Teamwork	Collaborates effectively with team members, promoting a positive group dynamic.	85% staff at Level 3 and above	Team-building activities, cross-functional projects, promote open communication
Improve Data Analytics Proficiency	Data Analytics Skill Evaluation and Improvisation	70% of staff with data analytics expertise	Data Analytics Courses and training to the staffs
Demonstrate Leadership and Initiative	Demonstrates leadership qualities and initiative when needed, providing guidance and support to team members.	75% staff at Level 3 and above	Leadership training, mentorship programs, recognize and reward leadership contributions
Enhance Social Media Engagement	Social Media Metrics	Increased engagement on social platforms	Social Media Strategy Review

4.2.2 Insights for Operational Analysis:

- The Pearson Correlation Coefficient of 0.04 with a p-value of 0.56 indicates that there is a very weak correlation between HCRI and Culture Satisfaction of employees. This suggests that there is no meaningful or significant relationship between these variables.
- The count of employees in each level of BARS are identified,
 - Level 1 – 49
 - Level 2 – 53
 - Level 3 – 45
 - Level 4 – 53
- Using the ML concept, Bayes' Classification theorem, a model has been fit to classify the employees based on the BARS Levels. In it, the level 3 has a decent precision and recall

4.2.3 Key Metrics to be practised:

- **Human Capital Readiness (HCRI):** Improve HCRI to 92%
- **BARS:** Improve Level 4 with 40%, Level 3 with 30%, Level 2 with 30%
- **% of people attaining internal certification:** This metric assesses the proportion of employees who have successfully acquired internal certifications within the organization.

4.3 COST & PRODUCTIVITY:

Cost and productivity analysis is a vital aspect of managing and optimizing operations at Joie-Glam Fashion Business. This analysis involves closely examining the relationship between costs incurred and the productivity achieved across various functions within the organization.

Cost and productivity analysis is a strategic tool that Joie-Glam Fashion Business can use to enhance operational efficiency, control expenses, and ultimately achieve sustainable growth and success in the dynamic fashion market.

4.3.1 Enhancing the Business and Learning and Growth Perspective: Cost and Productivity Metrics for Joie-Glam Fashion Store.

Objective	HR Measure	Target	Initiative
Increase Revenue	Annual Sales Revenue	10% growth	Expand product offerings, marketing campaigns
	Customer Acquisition Rate: New Customers Acquired	15% increase	Enhance digital marketing and customer experience
	Average Order Value	10% increase	Upsell and cross-sell strategies
Reduce Cost	Cost per Order	5% reduction	Streamline supply chain, optimize operations and logistics
	Resource Utilization Rate	Maximize utilization	Improve inventory management and staffing
	Return Rate	2% reduction	Improve product quality and sizing accuracy
Compensation Satisfaction	Compensation Satisfaction Score	Increase to 75%	Evaluate and adjust compensation packages
	Training Hours per Employee	15 hours per year	Invest in employee development and skills training

	Employee Turnover Rate	10% reduction	Implement retention strategies and career growth paths
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4.3.2 Insights for Operational Analysis:

- **Feature Importance:**
 - **HCRI (Human Capital Return on Investment):** This factor holds the highest importance (0.462) in determining compensation satisfaction. A positive HCRI suggests that the organization is effectively leveraging its human capital, which likely positively influences compensation satisfaction.
 - **Culture Satisfaction Score:** The culture satisfaction score also plays a significant role (0.384) in determining compensation satisfaction. A positive and satisfying workplace culture can contribute to higher compensation satisfaction among employees.
 - **BARS (Behaviorally Anchored Rating Scale):** Although it has the lowest importance (0.154) among the three factors, BARS still has a notable influence on compensation satisfaction. This suggests that the performance evaluation method, represented by BARS, impacts how employees perceive their compensation satisfaction.

These factors collectively contribute to employees' overall satisfaction with their compensation.

- **Cost-benefit Analysis:** The organization has a cost-benefit of Rs. 3,45,80,596.00. This suggests that the benefits outweigh the costs, resulting in a net gain. In this context, the project or investment appears to be financially favourable, with potential returns or benefits exceeding the initial expenses or investments made.

4.3.3 Key Metrics to be practised:

Compensation Satisfactory Score - The compensation satisfaction score is a measure of how satisfied employees are with their compensation packages, which typically include

salary, bonuses, benefits, and other forms of remuneration. The current score is 64 which must be improved to at least 75 in six months.

4.4 RECRUITMENT AND ON-BOARDING

Recruitment management is vital for Joie-Glam Fashion Store because it ensures that the store brings in the right talent. The right employees not only possess the necessary skills but also align with the company's culture and values. Effective recruitment management helps in reducing turnover, enhancing team performance, and ultimately, delivering exceptional customer experiences. It is the cornerstone of building a strong, motivated, and skilled workforce that drives the store's success and growth.

4.4.1 Enhancing the Business and Learning and Growth Perspective: Recruitment Metrics for Joie-Glam Fashion Store:

Objective	HR Measure	Target	Initiative
Improve Time to Fill	Improve the average Time to Fill	Decrease the average time to fill positions	Implement streamlined recruitment processes, including automation where possible, and reduce bottlenecks.
Optimize Sourcing Channels	Enhance Sourcing Channel Effectiveness Index	Maximize the use of effective channels for recruitment	Analyze historical data to identify the most successful sourcing channels and allocate resources accordingly.
Enhance Recruitment Quality	Increase Candidate Quality Score	Increase the quality of hires, leading to higher performance	Implement rigorous screening and interview processes to match candidates more closely with job requirements.
Develop Talent Pipeline	Strengthen Talent Pipeline	Enhance the satisfaction and performance of new hires	Implement onboarding programs, mentorship, and continuous learning opportunities.
Foster Positive Employee Experience	Improve Employee Engagement Score	Boost overall employee satisfaction and engagement	Continuously gather feedback, address employee concerns, and provide career development opportunities.

Achieve High Employee Satisfaction	Increase Employee Satisfaction Index	Maintain a high level of employee satisfaction	Implement an employee feedback system, offer competitive compensation and benefits, and provide growth opportunities.
Ensure Efficient Recruitment	Improve Recruitment Process Efficiency Ratio	Streamline recruitment processes for efficiency	Automate routine tasks, utilize applicant tracking systems, and train HR teams on best practices.
Optimize Recruitment Costs	Reduction in Cost-per-Hire	Reduce recruitment costs while maintaining effectiveness	Analyze cost-per-hire metrics and adjust spending on sourcing channels accordingly.

4.4.2 Insights from Operational Analysis:

- The sourcing channel choice does not have a significant impact on the time it takes to fill positions in the organization.
- It does not significantly impact employee performance satisfaction also.
- Performance satisfaction appears to be the most critical factor in determining the choice of sourcing channel for recruitment.

4.4.3 Joie-Glam should track the following Recruitment metrics:

4.4.3.1 Time to Fill Positions: Measure the average time it takes to fill job vacancies. The goal is to decrease the time taken to fill positions, ensuring a timely recruitment process.

4.4.3.2 Sourcing Channel Effectiveness Index: Assess the effectiveness of various sourcing channels in generating qualified candidates. Allocate resources to the most successful channels to optimize recruitment efforts.

4.4.3.3 Employee Satisfaction Index: Measure the level of employee satisfaction post-recruitment. Maintain a high level of satisfaction by implementing an employee feedback system, offering competitive compensation and benefits, and providing growth opportunities.

4.5 TRAINING AND DEVELOPMENT:

In the fast-paced world of fashion and retail, the significance of Training and Development cannot be overstated. At Joie-Glam Fashion Store, the commitment to nurturing talent and enhancing skills is at the heart of its success.

The Training and Development programs at Joie-Glam Fashion Store are strategically designed to equip employees with the knowledge and expertise required to excel in their roles. The store understands that a well-trained workforce is not only more capable but also more motivated and engaged.

4.5.1 Enhancing the Business and Learning and Growth Perspective: Training and Development Metrics for Joie-Glam Fashion Store:

Objective	HR Measure	Target	Initiative
Improve Employee Training Satisfaction	Increase Employee Training Satisfaction	Increase employee training to high satisfaction for each employee.	Enhance the quality and relevance of training programs based on employee feedback.
Enhance Content Satisfaction	Improve Content Satisfaction	Increase content satisfaction to a clarity of 90%	Review and update training materials to align with employee expectations and needs.
Optimize Training Hours	Achieve hours satisfaction	Improve hours satisfaction and comfortable for each employee	Adjust training duration to match employee preferences and maximize effectiveness.
Develop Employee Skills	Achievement of Skill Development	Improve skill development ratings to 5	Offer additional skill-building opportunities, such as workshops and online courses.
Enhance Employee Knowledge	Increase Knowledge Level	Increase knowledge level ratings to 4	Incorporate more interactive and informative training content and resources.
Foster Continuous Learning	Participation in Ongoing Learning	Increase the percentage of employees participating in ongoing learning opportunities to 80%	Promote a culture of continuous learning by offering access to resources and encouraging participation.

Measure Employee Application	Application of Learning	Increase the rate at which employees apply what they've learned in training to their daily tasks.	Provide opportunities for practical application, mentoring, and feedback loops.
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4.5.2 Insights for Operational Analysis:

- The employees who are more satisfied with their training tend to also be more satisfied with their working hours.
- The employees who are more satisfied with their training tend to be less satisfied with the content of their work.
- There is no significant association between employee training satisfaction and knowledge level satisfaction.

4.5.3 Key Metrics to be practised for Training and Development:

4.5.3.1 Learning & Development Investment per Full-Time Employee: This metric calculates the investment made in learning and development for each full-time employee. It reflects the store's commitment to employee growth and skill enhancement.

4.5.3.2 Employee Satisfaction with Training: This metric is based on survey results that measure how satisfied employees are with the training they receive. It provides insights into the effectiveness of training programs and the overall employee experience.

4.6 PERFORMANCE MANAGEMENT:

Performance management is a vital aspect of ensuring the store's success and growth. It involves the systematic process of setting clear expectations, measuring employee performance against these expectations, and providing regular feedback and coaching.

One of the key objectives of performance management at Joie-Glam is to foster a culture of continuous improvement. This means that employees are encouraged to not only meet their current performance goals but also strive for excellence and personal growth.

4.6.1 Enhancing the Business and Learning and Growth Perspective: Performance Management Metrics for Joie-Glam Fashion Store:

Objective	HR Measure	Target	Initiative
Optimize Performance Rating	Increase Performance Rating	Improve the average performance rating of employees to 5	Identify factors affecting performance ratings and provide targeted training and support.
Enhance Sourcing Channel Effectiveness	Improve Sourcing Channel Effectiveness Index	Increase the effectiveness of sourcing channels for recruitment, aiming for high performance rating	Analyze historical data to identify and allocate resources to the most effective sourcing channels.
Improve Employee Engagement	Increase Employee Engagement Score	Increase employee engagement levels, aiming for better performance	Implement engagement initiatives, recognition programs, and regular feedback mechanisms.
Optimize Workload Distribution	Enhance the Workload Distribution Balance	Achieve a balanced workload distribution among employees	Monitor and adjust workload allocation to prevent overloading or underutilizing employees.
Develop Employee Training Satisfaction	Employee Training Satisfaction	Improve the average satisfaction rating for employee training to 5 (High)	Enhance the quality and relevance of training programs based on employee feedback.
Encourage Continuous Learning	Increase participation in Ongoing Learning	Increase the percentage of employees participating in ongoing learning opportunities	Promote a culture of continuous learning by offering access to resources and encouraging participation.
Enhance Skill Development	Improve the Skill Proficiency Levels	Improve employee skill proficiency levels, aiming for higher performance among employees	Provide skill-building opportunities, mentorship, and cross-training programs.

Measure Employee Feedback	Maximize the Frequency of Employee Feedback	Increase the frequency of employee feedback and check-ins, aiming for high satisfaction among employees	Implement regular feedback sessions and encourage open communication between employees and managers.
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4.6.2 Insights for Operational Analysis:

- There is a weak negative correlation (-0.14) between the performance rating of employees and the sourcing channel used for recruitment. However, the p-value of 0.35 suggests that this correlation is not statistically significant. In other words, there is no strong evidence to conclude that the choice of sourcing channel has a significant impact on employee performance rating.
- There is a very weak negative correlation (-0.08) between performance rating and employee hours satisfaction. The p-value of 0.60 indicates that this correlation is not statistically significant. Therefore, there is no strong evidence to suggest that employee satisfaction with their working hours significantly affects their performance rating.
- There is a very weak positive correlation (0.06) between performance rating and employee training satisfaction. The p-value of 0.68 suggests that this correlation is not statistically significant. Thus, there is no strong evidence to conclude that employee satisfaction with training significantly impacts their performance rating.

This means that these factors do not appear to have a significant direct influence on employee performance ratings.

4.6.3 Suggestions of Key Metrics for Performance Management:

4.6.3.1 High Performer Growth Rate: It measures the rate at which high-performing employees are growing within the organization.

4.6.3.2 Goal Attainment: Tracking the achievement of performance goals helps evaluate individual and team effectiveness in meeting objectives.

4.7 MOTIVATION OF TALENT:

For Joie-Glam Fashion Store to maintain a strong and reliable team, the store should focus on inspiring and retaining talented individuals. They should seek out individuals with exceptional skills who are committed to building their careers within the industry. This approach will enable Joie-Glam to identify key performers and roles within the organization, leading to improvements in processes such as customer support, quality management, and product design. Consequently, achieving a high level of customer and client satisfaction, which will drive business growth and enhance financial efficiency, becomes attainable for them.

4.7.1 Enhancing the Business and Learning and Growth Perspective: Talent Management Metrics for Joie-Glam Fashion Store:

Objective	HR Measure	Target	Initiative
Retain High-Performing Staff	Improve High Performer Retention Rate	Increase the retention rate of high performers to 70%	Implement talent development programs, recognition, and career growth opportunities for high performers.
Elevate Medium Performers to High	Increase Percentage of Medium Performers Promoted	Promote 50% of medium performers to high performers.	Identify and provide targeted training and development programs for medium performers. Monitor performance improvements.
Improve Low Performers to Medium	Increase Percentage of Low Performers Improved	Raise 35% of low performers to the medium performer category	Offer performance improvement plans, training, and mentorship for low performers. Track progress and provide feedback.
Recruit Top Talent	Improvise the Quality of Hire	Achieve a 90% success rate in hiring top talent.	Enhance recruitment processes, collaborate with industry experts, and leverage employer branding to attract top candidates.

4.7.2 Insights from Operational Analysis:

- Percentage of Performers in the organization:
 - High Performers – 34.66%
 - Medium Performers – 31.47%
 - Low Performers – 33.86%
- High performers tend to have a slightly higher retention rate, meaning they are more likely to stay with the company
- Low performers are associated with a slightly higher turnover ratio, meaning they may be more likely to leave the company
- As employee satisfaction decreases, the retention rate may also decrease slightly, indicating that less satisfied employees are somewhat more likely to leave the company

4.7.3 Suggested Metrics for Talent Motivation are:

- **Work-Life Balance and Pride in the Organization:** Gauge work-life balance and pride in the organization through culture surveys and employee satisfaction assessments.
- **Employee Satisfaction Score:** Measure employee satisfaction through periodic anonymous surveys to gauge their contentment with their roles and the workplace and improve it to 90%.

Suggested Metrics for Talent Retention:

- **Retention Rate:** Measure the percentage of employees who remain with the company over a specific period and achieve a 70% high performer retention rate.
- **Average Years of Service:** Calculate the average number of years of employment for each employee.
- **Cost of Turnover per Employee:** Evaluate the total cost associated with employee turnover, including separation processing, vacancy gaps, replacement hiring, and training.

4.8 DIVERSITY

Diversity stands as a cornerstone of Joie-Glam Company's values and culture. The company is committed to promoting a diverse and inclusive workplace that embraces individuals from various backgrounds and perspectives.

In an ever-evolving fashion industry, Joie-Glam recognizes the importance of fostering a workforce that reflects the diversity of its global customer base. The company not only celebrates diversity but also actively seeks ways to enhance it.

Joie-Glam is dedicated to creating an environment where everyone feels valued and respected. This commitment extends to its interactions with a culturally diverse clientele.

4.8.1 Enhancing the Business Perspective and Learning & Growth Perspective: Diversity Metrics for Joie-Glam Online Fashion Store.

Objective	HR Measure	Target	Initiative
Actively fostering diversity within workplaces	Diversity Index (DI)	Increase DI by 10% within one year	Implement diversity training programs for employees
	Employee feedback on diversity and inclusion	Achieve a 90% positive feedback rate	Establish employee resource groups focused on diversity
	Diversity hiring rate	Hire a minimum of 25% diverse talent	Revise recruitment strategies to attract diverse candidates

4.8.2 Insights for Operational Analysis:

- The diversity and inclusivity rate of the organization has a positive low correlation (0.44) with the culture satisfaction of the employees in the organization.

4.8.3 The Metrics to be followed by Joie-Glam for Diversity:

4.6.3.1 Diversity Percentage – This metric measures the proportion of existing employees belonging to specific diversity categories.

4.6.3.2 Diversity Hire Ratio – This metric assesses the ratio of newly hired employees who fit into predefined diversity categories.

5. OPERATIONAL ANALYSIS

The insights of the operations analysis have been attached below each metric. The python code used for analysis, the output of analysis and the dashboard are attached in the annexure for further reference.

6. PREDICTIVE ANALYTICS:

S. No	Correlation Between		Reason for Correlation	Correlation Co-efficient	Result	Description
	A	B				
1	Culture Satisfaction Score	Inclusivity & Diversity	To understand if the employees are feeling included and check diversity satisfaction	0.477	High Correlation	The employees are positively included and there is high satisfaction on diversity
2	Culture Satisfaction Score	Team Collaboration	To understand if the employees working in teams are satisfied in the organization	0.383	High Correlation	There is high positive correlation between the culture satisfaction of employees and the team collaboration attributes.
3	Employee Training Satisfaction	Hours Satisfaction	To understand if the hours of training get the employees satisfied with their training sessions	0.314	High Correlation	The employee training satisfaction and hours of training highly correlate with each other.
4	Sourcing Channel	Time to fill	To understand if the time to fill attribute has got a positive impact from sourcing channel	0.142	Medium Correlation	The sourcing channel has a positive impact yet not high impact on time to fill the positions in the organization
5	Performance Rating	Employee Training Satisfaction	To understand if the employee training satisfaction has any strong impact on performance rating	0.006	Medium Correlation	The employee training satisfaction has a low positive relationship with the performance rating of the employees.

6	High Performer	Retention Rate	To understand if the high performing employees are going to stay in the organization	0.134	Medium Correlation	The high performers have a low positive impact on the retention rate of the organization
7	Low Performer	Turnover ratio	To understand if the low performing employees have any impact for turnover ratio	-0.05	Low Correlation	The low performer and turnover ratio attributes have a negative correlation which implies that they are more likely to leave the organization

7. CONCLUSION:

The various aspects of Joie-Glam Fashion Store's human resources practices and operations have been examined. The project has provided valuable insights into several key areas that are crucial for the store's growth and success in the competitive fashion industry.

Here are the main conclusions drawn from the analysis:

1. **Learning and Development:** While training programs are offered, feedback suggests room for improvement in their effectiveness.

Measures for Growth:

Conduct regular surveys and assessments to understand specific training needs.

Tailor training programs to address these needs and ensure they are practical for day-to-day work. Implement a feedback loop to continuously refine training based on employee input.

2. **Performance Evaluation:** Employee performance ratings do not consistently correlate with actual performance.

Measures for Growth:

Revise the performance evaluation process to include more comprehensive assessments beyond traditional ratings. Encourage ongoing performance discussions and feedback to provide a holistic view of employee contributions.

3. **Employee Engagement:** Employee engagement levels appear moderately high, but other measures do not consistently align.

Measures for Growth:

Invest in innovative culture-building practices that resonate with employees' values and aspirations. Implement engagement surveys at regular intervals to track changes and identify areas for improvement.

4. **Diversity and Inclusion:** Gender balance is not proportionate within the organization.

Measures for Growth:

Implement diversity and inclusion initiatives to create a more balanced and inclusive workplace. Promote diversity in recruitment processes and leadership roles.

Encourage an open and inclusive culture where all employees feel valued and heard.

By implementing the suggested measures and fostering a culture of continuous improvement, Joie-Glam can further enhance employee satisfaction, diversity, and overall organizational success in the dynamic and competitive fashion industry.

ANNEXURE:

Dummy Data:

Collected Responses:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1	Profit	5000000																							
2	Expenses (salary & benefits)	15419404																							
3																									
4																									
5	Name	Email	Age	Gender	Department	Position	Salary	Team Collaboration and Communication				Inclusivity and Diversity				Employee Growth and Development				Work-Life Balance		Company Values and Ethical Practices			
6	Douglas Lindsey	melissasanchez@hoffman.biz	25	Male	Marketing	Analyst	63596	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
7	Anthony Robertson	iclayton@shepherd.com	59	Female	IT	Manager	112540	3	5	1	4	1	5	3	5	1	5	1	4	5	4	2	2	3	3
8	Thomas Miller	jolusounariia@smith.com	30	Male	IT	Analyst	66292	3	5	1	4	4	3	4	3	2	3	1	1	2	5	1	3	1	5
9	Joshua Lewis	travisbrooks@graham-spencer.com	26	Female	Marketing	Intern	38303	5	4	4	5	3	4	2	4	4	2	1	1	5	2	5	5	1	2
10	Stephanie Bailey	timothy05@page.info	43	Male	IT	Team Lead	101133	5	1	3	1	5	5	5	4	1	2	4	1	4	2	3	3	4	4
11	Jonathan King	hukinner@keller.com	24	Male	Sales	Junior Developer	48740	3	1	2	2	1	5	2	2	2	5	4	5	3	3	4	1	4	2
12	Kyle Figueroa	bradleythomas@trujillo-reid.net	33	Female	Sales	Analyst	73502	3	2	5	4	4	4	4	1	3	4	1	3	3	5	3	5	5	1
13	Shannon Allen	gordon58@clayton.com	23	Female	HR	Intern	39670	2	1	1	1	4	1	3	1	3	2	5	3	2	2	4	3	3	2
14	Daryl Noble	joseph33@ramos-larson.net	30	Female	Marketing	Junior Developer	49323	3	2	5	2	3	3	3	4	2	5	4	1	2	3	3	2	5	3
15	Tracy Figueroa	smorris@white-ochao.org	39	Female	HR	Team Lead	92915	3	2	3	2	1	4	2	5	3	4	1	2	1	4	3	2	5	5
16	Eric Sanders	ruth52@reeves.com	36	Male	Finance	Senior Developer	80721	3	3	4	1	3	5	3	4	1	2	5	5	3	5	2	1	5	5
17	Joshua Nelson	paula24@allen-david.com	42	Female	Sales	Team Lead	95072	3	4	4	2	2	3	1	1	4	4	2	2	3	4	1	4	1	3
18	Donald Davis	jennavargas@thompson-knight.biz	25	Female	HR	Intern	35169	3	5	4	4	3	2	3	2	5	3	4	2	4	3	1	3	4	1
19	Ms. Emily Dawson	angelaphillips@kramer.com	32	Female	Marketing	Analyst	70271	2	3	2	4	1	2	2	5	5	5	5	2	4	5	5	5	5	5
20	Angela Davis	brandy02@dean.net	29	Male	Sales	Senior Developer	89571	3	3	4	5	4	5	3	4	1	1	2	4	2	4	2	4	5	5
21	Melissa Galvan	keole@rynn.com	40	Male	Sales	Manager	118466	5	2	1	4	4	1	4	5	5	2	1	4	1	4	2	1	5	3
22	Erin Smith	lorraine89@sanuto.com	46	Male	Marketing	Team Lead	105893	5	1	3	4	4	3	3	2	4	4	5	1	5	5	3	1	2	3
23	James Hernandez	ugrcris@moragan.com	41	Female	Marketing	Team Lead	92074	2	3	5	2	2	3	1	1	4	5	5	2	5	4	4	3	3	2
24	Amanda White	lindatorres@villarreal.com	36	Male	IT	Team Lead	107279	2	3	4	3	1	3	3	3	3	1	2	3	4	4	2	5	1	5
25	Michael Morton DDS	kmartinez@burnett-wilson.com	23	Male	Sales	Intern	37855	4	3	5	5	1	1	2	4	3	3	4	5	4	3	2	5	4	1

Processed Data for Culture:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Age	Gender	Department	Position	Salary	Team Communication	Inclusivity & Diversity	Employee Growth	Work-Life Balance	Ethical Practices	Innovation & Creativity	Customer Focus	Eco-friendly	Leadership Empowerment	Culture Satisfaction Score
1	1	Male	Marketing	Analyst	2	13	14	11	9	10	10	2		3	74
2	4	Female	IT	Manager	3	13	14	7	7	10	12	4		4	74
3	1	Male	IT	Analyst	2	18	13	8	7	13	11	3		5	83
4	1	Female	Marketing	Intern	1	10	19	8	6	14	11	7		3	83
5	3	Male	IT	Team Lead	3	8	10	16	6	11	13	7		5	79
6	1	Male	Sales	Employee	1	14	13	11	8	14	6	7		4	80
7	2	Female	Sales	Analyst	2	5	9	13	4	12	8	2		5	63
8	1	Female	HR	Intern	1	12	13	12	5	13	12	6		2	80
9	1	Female	Marketing	Employee	1	10	12	10	5	15	11	5		1	70
10	2	Female	HR	Team Lead	3	11	15	13	8	13	7	6		5	82
11	2	Male	Finance	Supervisor	3	13	7	12	7	9	7	3		3	65
12	3	Female	Sales	Team Lead	3	16	10	14	7	9	15	8		3	83
13	1	Female	HR	Intern	1	11	10	17	9	20	8	7		5	92
14	2	Female	Marketing	Analyst	2	15	16	8	6	16	11	5		1	80
15	1	Male	Sales	Supervisor	3	12	14	12	5	11	8	7		2	73
16	2	Male	Sales	Manager	3	13	12	14	10	9	11	7		4	84
17	3	Male	Marketing	Team Lead	3	12	7	16	9	12	5	5		4	71
18	3	Female	Marketing	Team Lead	3	12	10	9	8	13	12	7		3	77
19	2	Male	IT	Team Lead	3	17	8	15	7	12	13	4		4	83
20	1	Male	Sales	Intern	1	9	9	12	9	10	9	8		1	70
21	1	Male	Finance	Employee	2	16	18	9	7	14	10	8		2	88
22	1	Female	Sales	Employee	2	10	12	12	10	12	10	5		5	81
23	1	Female	Finance	Employee	2	13	8	17	6	11	6	3		1	66

For competency & cost and productivity:

P	Q	R	S	T	U	V	W
HCRI	BARS	Tasks Completed	Employee Hours	Productivity Per Employee	Compensation Satisfaction Score	Analysis	Values
98	Level 2	6	8	75.00%	42	Revnu Per Employee	250000
34	Level 1	2	6	33.33%	53	Cost Per Employee	77097
85	Level 2	2	9	22.22%	34	No.of employees	200
87	Level 3	7	7	100.00%	55		
64	Level 4	2	6	33.33%	60		
87	Level 3	2	6	33.33%	43		
95	Level 1	3	7	42.86%	66		
69	Level 1	3	7	42.86%	49		
95	Level 2	5	7	71.43%	66		
73	Level 2	6	6	100.00%	59		
69	Level 1	5	9	55.56%	100		
82	Level 4	3	7	42.86%	35		
62	Level 1	7	9	77.78%	30		
70	Level 2	4	8	50.00%	74		
49	Level 4	6	9	66.67%	55		
38	Level 4	6	7	85.71%	53		
72	Level 2	5	6	83.33%	83		
98	Level 2	2	9	22.22%	58		
91	Level 1	2	7	28.57%	76		
75	Level 4	7	9	77.78%	89		
85	Level 4	3	9	33.33%	57		
64	Level 2	9	9	100.00%	57		
100	Level 4	7	8	87.50%	41		

Recruitment & Training:

Recruiting Cost (30000)	Induction Program Cost (20000)	Time to Fill(Days 10)	Sourcing Channel	Type of Training	Hours of Training	Hours Satisfaction	Content Satisfaction	Skill Development	Knowledge Level	Employee Training Satisfaction	Performance Differential	New Hires performance satisfaction (100)	Performance Rating
19811	13385	7	Linkedin	On the Job	3	4	5	5	1	3	3	37	LOW
25133	11972	10	Referral	Off the Job	7	1	5	2	5	3	2	65	HIGH
16623	19183	5	Referral	On the Job	6	3	2	2	5	2	3	74	HIGH
14788	15106	7	Campus	On the Job	2	2	5	1	1	1	6	38	HIGH
19224	19063	8	Referral	On the Job	8	5	1	3	1	2	1	37	LOW
23627	15689	4	Referral	On the Job	2	5	4	1	5	2	2	86	LOW
27308	19145	1	Linkedin	On the Job	7	2	2	1	4	4	-1	54	MEDIUM
24055	12447	5	Referral	Off the Job	6	1	5	5	3	4	6	49	MEDIUM
25936	15950	6	Agent	On the Job	5	5	5	3	1	5	3	74	MEDIUM
16709	12753	10	Linkedin	Off the Job	3	4	3	5	3	3	2	36	LOW
14340	11051	9	Campus	Off the Job	3	5	3	1	2	3	-1	30	MEDIUM
14405	15820	5	Indeed	On the Job	6	2	5	4	4	2	0	41	MEDIUM
20002	10782	1	Agent	On the Job	7	1	4	3	2	2	4	26	HIGH
10906	11751	4	Referral	On the Job	7	4	4	4	5	4	1	90	HIGH
24860	12598	4	Campus	Off the Job	8	3	1	3	2	3	3	80	LOW
23519	14192	4	Agent	On the Job	5	5	4	5	3	3	3	65	HIGH
29492	15279	2	Agent	Off the Job	6	5	1	5	4	4	4	71	LOW
18205	18132	2	Referral	On the Job	8	1	4	1	2	1	1	39	LOW
19964	15820	2	Referral	Off the Job	2	5	2	3	2	5	2	91	HIGH
27104	13540	1	Referral	On the Job	8	5	4	5	2	3	0	100	HIGH
27907	18101	5	Agent	Off the Job	6	1	5	1	4	1	4	68	HIGH
14059	10676	4	Linkedin	Off the Job	6	4	2	1	1	5	4	39	HIGH
21979	10143	3	Indeed	On the Job	8	4	1	2	4	4	-1	39	LOW
25571	10732	7	Campus	Off the Job	8	1	5	5	5	1	2	75	HIGH
19505	14511	3	Agent	On the Job	6	4	1	1	5	2	-3	65	LOW
11072	15503	3	Indeed	On the Job	8	3	2	2	4	3	2	74	MEDIUM

Performance and Talent Management:

O	P	Q	R	S	T	U	V	W	X	Y	Z
Target Given	Target Achieved	Performance Rating	Experience in Years	Status	Overall Employee Satisfaction	Work_life_Balance	Turnover_ratio	High Performer	Medium Performer	Low Performer	Retention Rate
3	6	HIGH	5	Left	3	9	37	1	0	0	66
2	2	HIGH	6	Left	2	7	33	1	0	0	54
5	2	LOW	3	Working	5	7	63	0	0	1	77
4	7	HIGH	5	Left	2	6	65	1	0	0	87
6	2	LOW	10	Left	1	6	41	0	0	1	37
3	2	MEDIUM	2	Left	4	8	36	0	1	0	80
3	3	LOW	2	Left	3	4	55	0	0	1	90
5	3	LOW	5	Left	4	5	59	0	0	1	65
4	5	HIGH	6	Left	3	5	74	1	0	0	90
5	6	MEDIUM	8	Left	4	8	50	0	1	0	42
4	5	HIGH	3	Working	2	7	78	1	0	0	72
6	3	MEDIUM	8	Working	3	7	61	0	1	0	67
5	7	LOW	4	Left	1	9	61	0	0	1	73
5	4	HIGH	5	Working	4	6	69	1	0	0	69
4	6	LOW	6	Left	3	5	79	0	0	1	90
4	6	MEDIUM	10	Working	4	10	67	0	1	0	32
5	5	MEDIUM	8	Working	5	9	70	0	1	0	54
4	2	MEDIUM	10	Left	1	8	66	0	1	0	31
3	2	HIGH	4	Working	4	7	31	1	0	0	49
5	7	MEDIUM	2	Working	3	9	55	0	1	0	88
4	3	HIGH	6	Working	5	7	68	1	0	0	31
4	9	HIGH	6	Left	1	10	39	1	0	0	58
6	7	MEDIUM	9	Working	1	6	59	0	1	0	40

Operation Analysis Code & Output:

```

import pandas as pd

import numpy as np

from scipy import stats

from scipy.stats import spearmanr

from scipy.stats import pearsonr

import seaborn as sns

import matplotlib.pyplot as plt

from sklearn.preprocessing import LabelEncoder

from sklearn.cluster import KMeans

from sklearn.preprocessing import StandardScaler

from sklearn.model_selection import train_test_split

```

```
from sklearn.naive_bayes import GaussianNB

from sklearn.metrics import accuracy_score, classification_report

from sklearn.ensemble import RandomForestRegressor

import openpyxl

import warnings

warnings.filterwarnings('ignore')

data = pd.read_excel('ecom.xlsx', sheet_name='py')

print(data.head())

print(data.isnull().sum())


## CULTURE SATISFACATION

## Group data by Department and calculate mean satisfaction

department_satisfaction = data.groupby('Department')['Culture Satisfaction Score'].mean()

## Group data by Position and calculate mean satisfaction

position_satisfaction = data.groupby('Position')['Culture Satisfaction Score'].mean()

## Group data by Gender and calculate mean satisfaction

gender_satisfaction = data.groupby('Gender')['Culture Satisfaction Score'].mean()

print("\nSatisfaction by Department:")

print(department_satisfaction)

plt.figure(figsize=(10, 6))

sns.barplot(x=department_satisfaction.index, y=department_satisfaction.values)

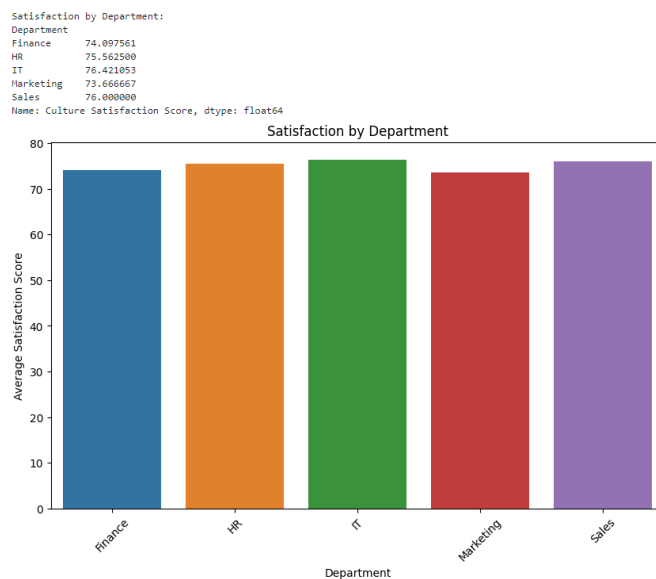
plt.title('Satisfaction by Department')

plt.xlabel('Department')

plt.ylabel('Average Satisfaction Score')
```

```
plt.xticks(rotation=45)
```

```
plt.show()
```



```
print("\nSatisfaction by Gender:")
```

```
print(gender_satisfaction)
```

```
labels = ['Female', 'Male']
```

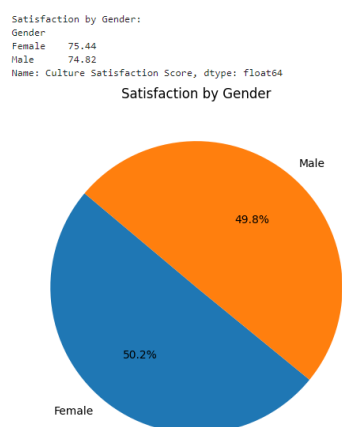
```
sizes = [50, 50]
```

```
plt.figure(figsize=(6, 6))
```

```
plt.pie(gender_satisfaction, labels=labels, autopct='%1.1f%%', startangle=140)
```

```
plt.title('Satisfaction by Gender')
```

```
plt.show()
```



```

# Initialize LabelEncoders for each categorical column

categorical_columns = ['Gender', 'Department', 'Position', 'BARS']

label_encoders = {}

for column in categorical_columns:

    le = LabelEncoder()

    data[column] = le.fit_transform(data[column])

    label_encoders[column] = le

print(data.head())

# Drop Unnecessary Columns

dat = ['Age', 'Gender', 'Department', 'Position', 'Salary', 'HCRI', 'BARS', 'Analysis', 'Values']

dat = data.drop(columns=dat)

# Correlation - Satisfaction Score

print("\nSatisfaction Score - correlation\n")

correlations = dat.corr()['Culture Satisfaction Score'].sort_values(ascending=False)

print(correlations)

```

```

Satisfaction Score - correlation

Culture Satisfaction Score      1.000000
Inclusivity & Diversity          0.477853
Ethical Practices               0.469009
Team Communication              0.383888
Customer Focus                  0.362764
Innovation & Creativity         0.347375
Work-Life Balance               0.251541
Eco-friendly                    0.233427
Leadership Empowerment          0.205692
Employee Growth                 0.156880
Productivity Per Employee       -0.017661
Tasks Completed                 -0.054274
Employee Hours                  -0.083474
Compensation Satisfaction Score -0.088889
Name: Culture Satisfaction Score, dtype: float64

```

```
# Overall Satisfaction Score
```

```
emp_satisfaction = data['Culture Satisfaction Score'].mean()
print(f"\nOverall Satisfaction: {emp_satisfaction:.2f}")
```

```
Overall Satisfaction: 75.13
```



```

## Spearmann Correlation between each category

print("\nCorrelation & P_value:\n")

correlation, p_value = spearmanr(data['Employee Growth'], data['Inclusivity & Diversity'])

print(f'Employee & Diversity - Correlation: {correlation:.2f} P_value: {p_value:.2f}')

correlation, p_value = spearmanr(data['Employee Growth'], data['Work-Life Balance'])

print(f'Employee Growth & Work-Life Balance - Correlation: {correlation:.2f} P_value: {p_value:.2f}')

correlation, p_value = spearmanr(data['Ethical Practices'], data['Customer Focus'])

print(f'Ethical & Customer Focus - Correlation: {correlation:.2f} P_value: {p_value:.2f}')

correlation, p_value = spearmanr(data['Team Communication'], data['Innovation & Creativity'])

print(f'Team & Creativity - Correlation: {correlation:.2f} P_value: {p_value:.2f}')

correlation, p_value = spearmanr(data['Inclusivity & Diversity'], data['Leadership Empowerment'])

print(f'Diversity & Leadership - Correlation: {correlation:.2f} P_value: {p_value:.2f}')

Correlation & P_value:

Employee & Diversity - Correlation: -0.13 P_value: 0.06
Employee Growth & Work-Life Balance - Correlation: -0.08 P_value: 0.28
Ethical & Customer Focus - Correlation: 0.07 P_value: 0.36
Team & Creativity - Correlation: 0.05 P_value: 0.46
Diversity & Leadership - Correlation: 0.09 P_value: 0.23

# Calculate the correlation matrix

df = ['Analysis', 'Values', 'Tasks Completed', 'Employee Hours']

df = data.drop(columns=df)

correlation_matrix = df.corr()

#Create a heatmap of the correlation matrix

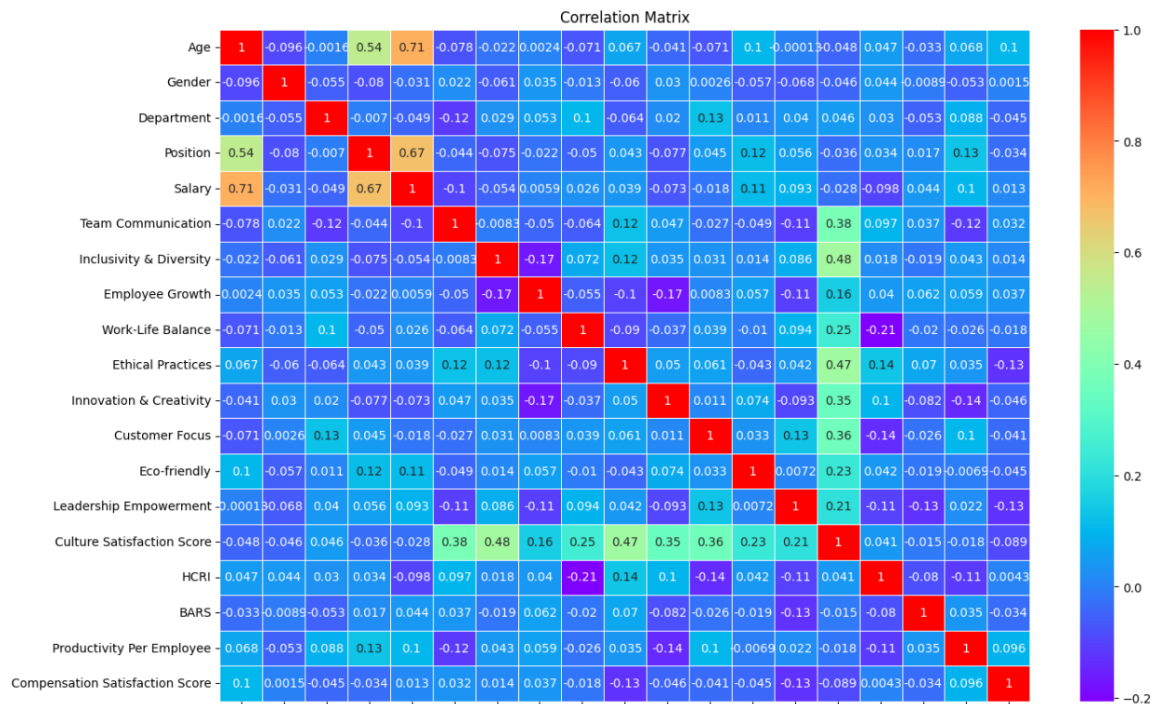
plt.figure(figsize=(15, 10))

```

```
sns.heatmap(correlation_matrix, annot=True, cmap='rainbow', linewidths=0.5)
```

```
plt.title('Correlation Matrix')
```

```
plt.show()
```



COMPETENCY ANALYSIS

```
# Calculate the Pearson correlation coefficient and p-value
```

```
correlation_coefficient, p_value = pearsonr( data['Culture Satisfaction Score'], data['HCRI'] )
```

```
# Print the correlation coefficient and its significance
```

```
print(f'Pearson Correlation Coefficient: {correlation_coefficient:.2f}')
```

```
print(f'P-value: {p_value:.2f}')
```

```
# Determine if the correlation is significant (common significance level is 0.05)
```

```
if p_value < 0.05:
```

```
    print("The correlation is statistically significant.")
```

```
else:
```

```
    print("The correlation is not statistically significant.")
```

```
Pearson Correlation Coefficient: 0.04  
P-value: 0.56  
The correlation is not statistically significant.
```

```
# Clustering
```

```
X = data[['Culture Satisfaction Score', 'BARS']]
```

```
# Standardize the data
```

```
scaler = StandardScaler()
```

```
X_std = scaler.fit_transform(X)
```

```
# Specify the number of clusters
```

```
n_clusters = 2
```

```
# Create and fit a K-Means clustering model
```

```
kmeans = KMeans(n_clusters=n_clusters, random_state=42)
```

```
kmeans.fit(X_std)
```

```
# Add cluster labels to the original DataFrame
```

```
data['Cluster'] = kmeans.labels_
```

```
# Visualize the clusters (optional)
```

```
plt.figure(figsize=(10, 6))
```

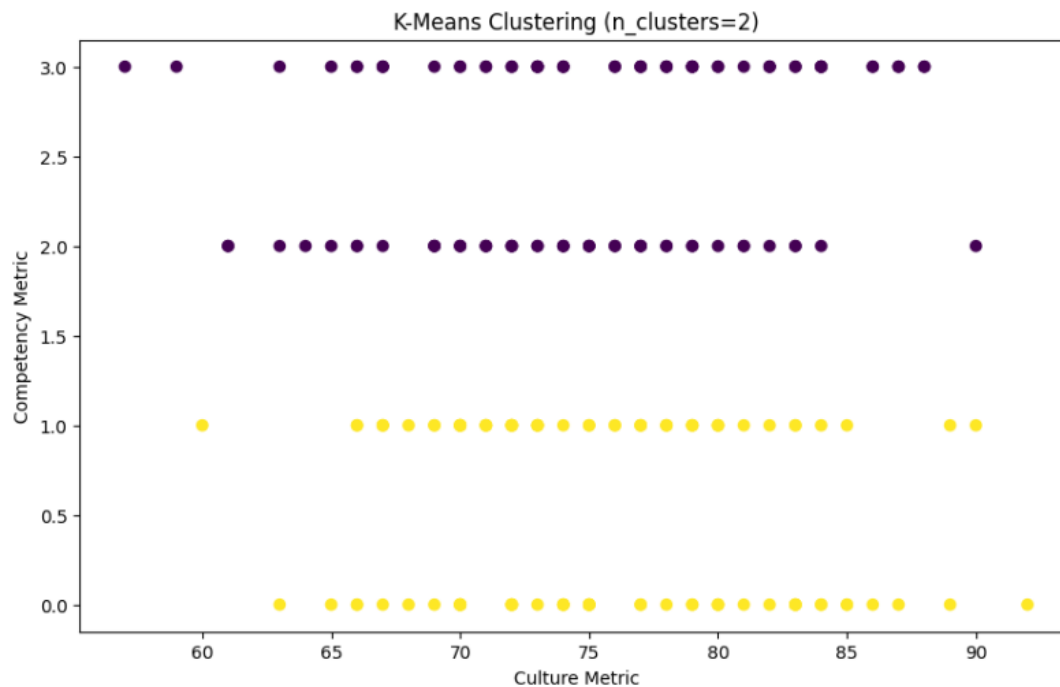
```
plt.scatter(data['Culture Satisfaction Score'], data['BARS'], c=data['Cluster'], cmap='viridis')
```

```
plt.xlabel('Culture Metric')
```

```
plt.ylabel('Competency Metric')
```

```
plt.title(f'K-Means Clustering (n_clusters={n_clusters})')
```

```
plt.show()
```



```
## Count of employees in each level

category_counts = data[['BARS']].value_counts().sort_index()

total_count = category_counts.sum()

for category, count in category_counts.items():

    percentage = (count / total_count) * 100

    print(f"Count of {category}: {count} ({percentage:.2f}%)")
```

```
Count of (0,): 49 (24.50%)
Count of (1,): 53 (26.50%)
Count of (2,): 45 (22.50%)
Count of (3,): 53 (26.50%)
```

```
# Split the dataset into features (X) and target labels (y)

X = data[['Culture Satisfaction Score', 'HCRI']]

y = data['BARS']

# Split the data into training and testing sets
```

```

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

# Create a Naive Bayes classifier (Gaussian Naive Bayes)

naive_bayes_classifier = GaussianNB()

# Train the classifier on the training data

naive_bayes_classifier.fit(X_train, y_train)

# Make predictions on the testing data

y_pred = naive_bayes_classifier.predict(X_test)

# Evaluate the classifier's performance

accuracy = accuracy_score(y_test, y_pred)

report = classification_report(y_test, y_pred)

# Print the results

print(f"Accuracy: {accuracy}")

print("Classification Report:\n", report)

```

```

Accuracy: 0.325
Classification Report:

```

	precision	recall	f1-score	support
0	0.50	0.17	0.25	12
1	0.12	0.60	0.20	5
2	1.00	0.10	0.18	10
3	0.70	0.54	0.61	13
accuracy			0.33	40
macro avg	0.58	0.35	0.31	40
weighted avg	0.64	0.33	0.34	40

Cost and Productivity Analysis

Split the data into features (X) and the target variable (y)

```
X = data[['Culture Satisfaction Score', 'HCRI', 'BARS']]
```

```

y = data['Compensation Satisfaction Score']

# Create a RandomForestRegressor model

model = RandomForestRegressor(n_estimators=100, random_state=42)

# Fit the model to your data

model.fit(X, y)

# Get feature importances

feature_importances = model.feature_importances_

# Create a DataFrame to display feature names and their importances

feature_importance_df = pd.DataFrame({'Feature': X.columns, 'Importance':
feature_importances})

# Sort features by importance in descending order

feature_importance_df = feature_importance_df.sort_values(by='Importance',
ascending=False)

# Print or visualize the feature importance

print(feature_importance_df)

```

	Feature	Importance
1	HCRI	0.462350
0	Culture Satisfaction Score	0.383638
2	BARS	0.154012

```
## Cost-benefit Analysis
```

```
workbook = openpyxl.load_workbook('ecom.xlsx')
```

```
worksheet = workbook['py']
```

```
Revenue_Per_Employee = worksheet.cell(row=2, column=23)
```

```
Cost_Per_Employee = worksheet.cell(row=3, column=23)
```

```
No_of_employees = worksheet.cell(row=4, column=23)
```

```

rev = Revenue_Per_Employee.value

num = No_of_employees.value

cost = Cost_Per_Employee.value

# Calculate Total Revenue

Total_Revenue = rev * num

# Calculate Total Cost

Total_Cost = cost * num

# Calculate Net Benefit

Cost_Benefit = Total_Revenue - Total_Cost

print("\nCost Benefit: ")

print(Cost_Benefit)

Cost Benefit:
34580596.0

## Recruitment Analysis

new_hire = pd.read_excel('ecom.xlsx', sheet_name='new_hire')

## Correlation Analysis

print("\nCorrelation & P_value:\n")

correlation, p_value = spearmanr(new_hire['Sourcing Channel'], new_hire['Time to Fill(Days
10)'])

print(f"Sourcing Channel & Time to Fill - Correlation: {correlation:.2f} P_value:
{p_value:.2f}")

correlation, p_value = spearmanr(new_hire['Sourcing Channel'], new_hire['New Hires
performance satisfaction (100)'])

print(f"Sourcing Channel & Performance satisfaction - Correlation: {correlation:.2f}
P_value: {p_value:.2f}")

```

Correlation & P_value:

Sourcing Channel & Time to Fill - Correlation: 0.14 P_value: 0.33

Sourcing Channel & Performance satisfaction - Correlation: 0.01 P_value: 0.93

Feature Importance Analysis

Split the data into features (X) and the target variable (y)

```
X = new_hire[['Time to Fill(Days 10)', 'New Hires performance satisfaction (100)',
'Performance Differential']]
```

```
Y = new_hire['Sourcing Channel']
```

Create a RandomForestRegressor model

```
model = RandomForestRegressor(n_estimators=100, random_state=42)
```

Fit the model to your data

```
model.fit(X, Y)
```

Get feature importances

```
feature_importances = model.feature_importances_
```

Create a DataFrame to display feature names and their importances

```
feature_importance_df = pd.DataFrame({'Feature': X.columns, 'Importance':
feature_importances})
```

Sort features by importance in descending order

```
feature_importance_df = feature_importance_df.sort_values(by='Importance',
ascending=False)
```

Print or visualize the feature importance

```
print(feature_importance_df)
```

	Feature	Importance
1	New Hires performance satisfaction (100)	0.455576
0	Time to Fill(Days 10)	0.289699
2	Performance Differential	0.254725


```
## Training and development Analysis
```

```
## Correlation Analysis
```

```
print("\nCorrelation & P_value:\n")
```

```
correlation, p_value = spearmanr(new_hire['Employee Training Satisfaction'],
new_hire['Hours Satisfaction'])
```

```
print(f'Employee Training Satisfaction & Hours Satisfaction - Correlation: {correlation:.2f}
P_value: {p_value:.2f}')
```

```
correlation, p_value = spearmanr(new_hire['Employee Training Satisfaction'],
new_hire['Content Satisfaction'])
```

```
print(f'Employee Training Satisfaction & Content Satisfaction - Correlation:
{correlation:.2f} P_value: {p_value:.2f}')
```

```
correlation, p_value = spearmanr(new_hire['Employee Training Satisfaction'], new_hire['Skill
Development'])
```

```
print(f'Employee Training Satisfaction & Skill Development - Correlation: {correlation:.2f}
P_value: {p_value:.2f}')
```

```
correlation, p_value = spearmanr(new_hire['Employee Training Satisfaction'],
new_hire['Knowledge Level'])
```

```
print(f'Employee Training Satisfaction & Knowledge Level - Correlation: {correlation:.2f}
P_value: {p_value:.2f}')
```

```
Correlation & P_value:
```

```
Employee Training Satisfaction & Hours Satisfaction - Correlation: 0.31 P_value: 0.03
Employee Training Satisfaction & Content Satisfaction - Correlation: -0.41 P_value: 0.00
Employee Training Satisfaction & Skill Development - Correlation: 0.05 P_value: 0.76
Employee Training Satisfaction & Knowledge Level - Correlation: -0.10 P_value: 0.49
```

```
## Correlation for recruitment and training
```

```
hire = new_hire[['Content Satisfaction', 'Skill Development', 'Knowledge Level', 'Hours
Satisfaction', 'Sourcing Channel', 'New Hires performance satisfaction (100)', 'Employee
Training Satisfaction']]
```

```

correlation_matrix = hire.corr()

#Create a heatmap of the correlation matrix

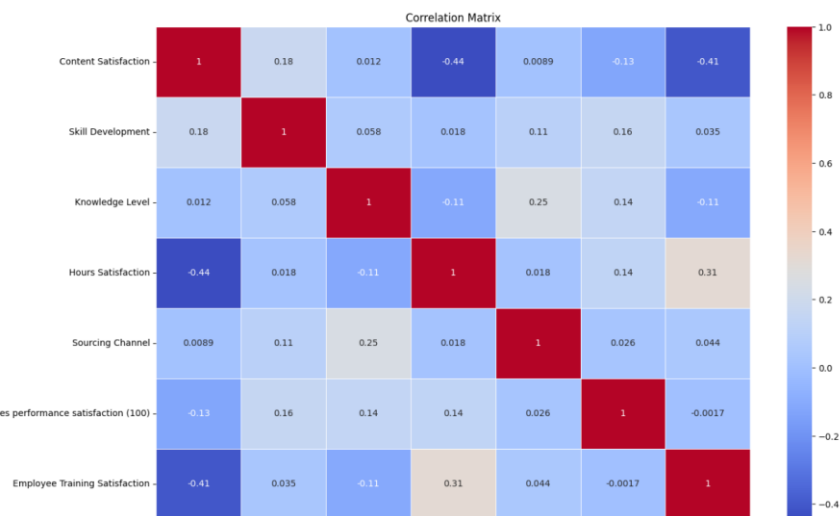
plt.figure(figsize=(15, 10))

sns.heatmap(correlation_matrix, annot=True, cmap='coolwarm', linewidths=0.5)

plt.title('Correlation Matrix')

plt.show()

```



Performance Management

```
td = pd.read_excel('ecom.xlsx', sheet_name='total_data')
```

Correlation Analysis

```
print("\nCorrelation & P_value:\n")
```

```
correlation, p_value = spearmanr(new_hire['Performance Rating'], new_hire['Sourcing Channel'])
```

```
print(f'Performance Rating & Sourcing Channel - Correlation: {correlation:.2f} P_value: {p_value:.2f}')
```

```
correlation, p_value = spearmanr(new_hire['Performance Rating'], new_hire['Hours Satisfaction'])
```

```
print(f'Performance Rating & Hours Satisfaction - Correlation: {correlation:.2f} P_value: {p_value:.2f}')
```

```
correlation, p_value = spearmanr(new_hire['Performance Rating'], new_hire['Employee
Training Satisfaction'])

print(f'Performance Rating & Employee Training Satisfaction - Correlation: {correlation:.2f}
P_value: {p_value:.2f}')
```

```
Correlation & P_value:
```

```
Performance Rating & Sourcing Channel - Correlation: -0.14 P_value: 0.35
Performance Rating & Hours Satisfaction - Correlation: -0.08 P_value: 0.60
Performance Rating & Employee Training Satisfaction - Correlation: 0.06 P_value: 0.68
```

```
# Calculate the percentages
```

```
total_employees = len(td)
```

```
high_percentage = (higher_perform_emp / total_employees) * 100
```

```
medium_percentage = (medium_perform_emp / total_employees) * 100
```

```
low_percentage = (lower_perform_emp / total_employees) * 100
```

```
# Print the percentages
```

```
print(f'Percentage of High Performers: {high_percentage:.2f}%')
```

```
print(f'Percentage of Medium Performers: {medium_percentage:.2f}%')
```

```
print(f'Percentage of Low Performers: {low_percentage:.2f}%')
```

```
Percentage of High Performers: 34.66%
Percentage of Medium Performers: 31.47%
Percentage of Low Performers: 33.86%
```

```
## Talent Management
```

```
## Relationship between Performance Rating and Retention Rate
```

```
# Calculate the correlations
```

```
correlation_hp_rr = td['High Performer'].corr(td['Retention Rate'])
```

```
correlation_lp_rr = td['Low Performer'].corr(td['Retention Rate'])
```

```
correlation_hp_tr = td['High Performer'].corr(td['Turnover_ratio'])

correlation_lp_tr = td['Low Performer'].corr(td['Turnover_ratio'])

correlation_satisfaction_rr = td['Overall Employee Satisfaction'].corr(td['Retention Rate'])

# Print the correlation coefficients

print(f'Correlation between High Performer and Retention Rate: {correlation_hp_rr:.2f}')

print(f'Correlation between Low Performer and Retention Rate: {correlation_lp_rr:.2f}')

print(f'Correlation between High Performer and Turnover Ratio: {correlation_hp_tr:.2f}')

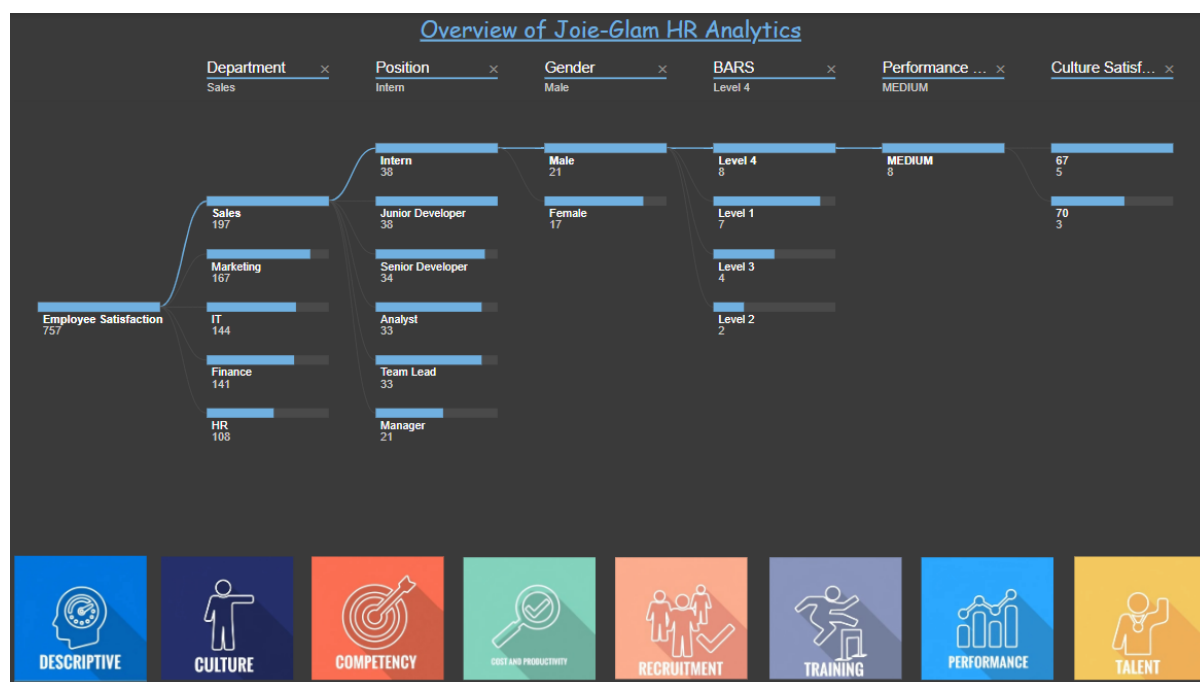
print(f'Correlation between Low Performer and Turnover Ratio: {correlation_lp_tr:.2f}')

print(f'Correlation between Employee Satisfaction and Retention Rate:
{correlation_satisfaction_rr:.2f}')
```

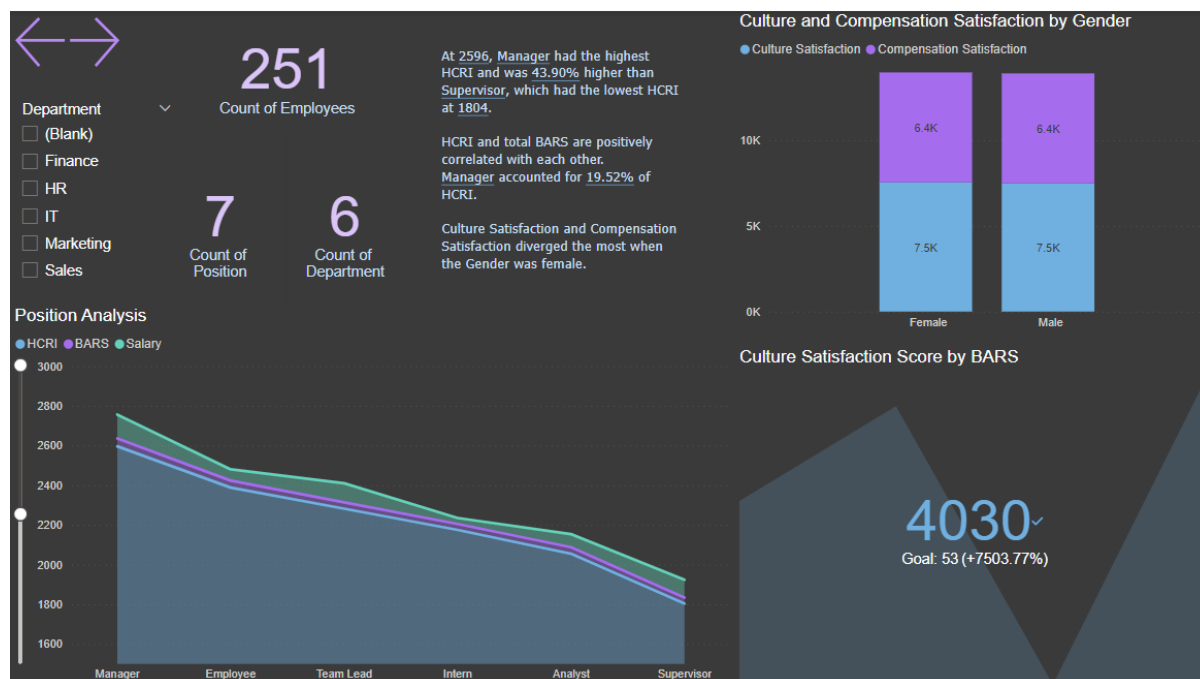
```
Correlation between High Performer and Retention Rate: 0.13
Correlation between Low Performer and Retention Rate: -0.01
Correlation between High Performer and Turnover Ratio: -0.00
Correlation between Low Performer and Turnover Ratio: -0.05
Correlation between Employee Satisfaction and Retention Rate: -0.05
```

Dashboard:

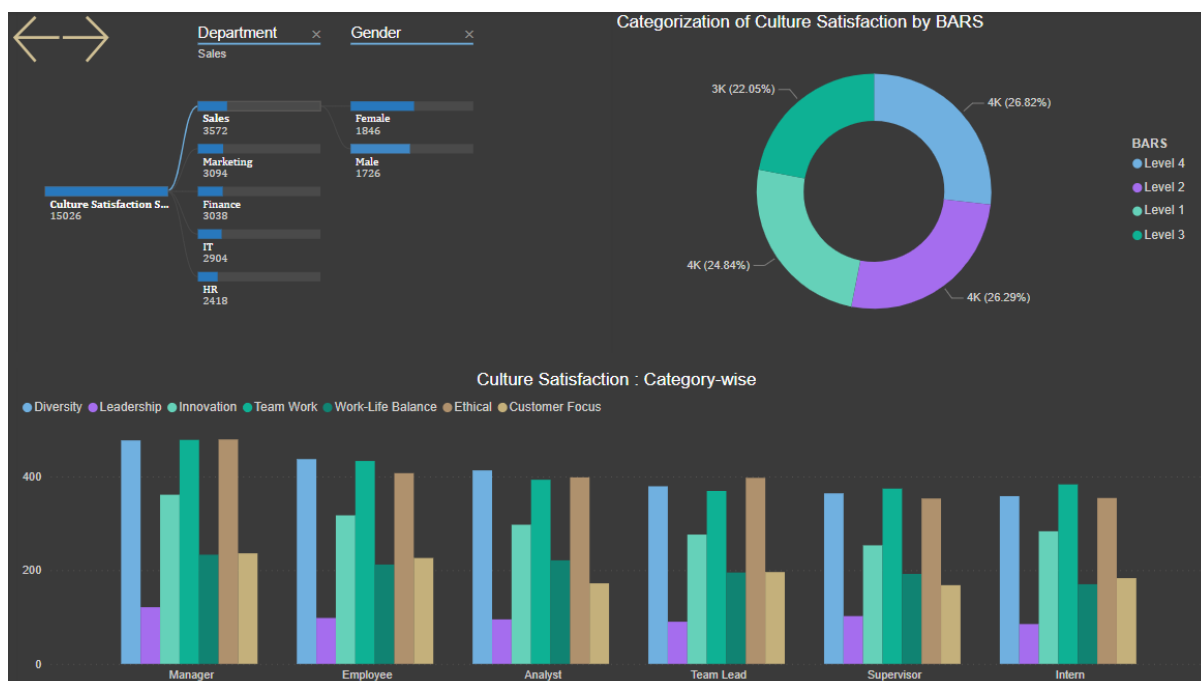
Overview of Joie-Glam HR Analytics:



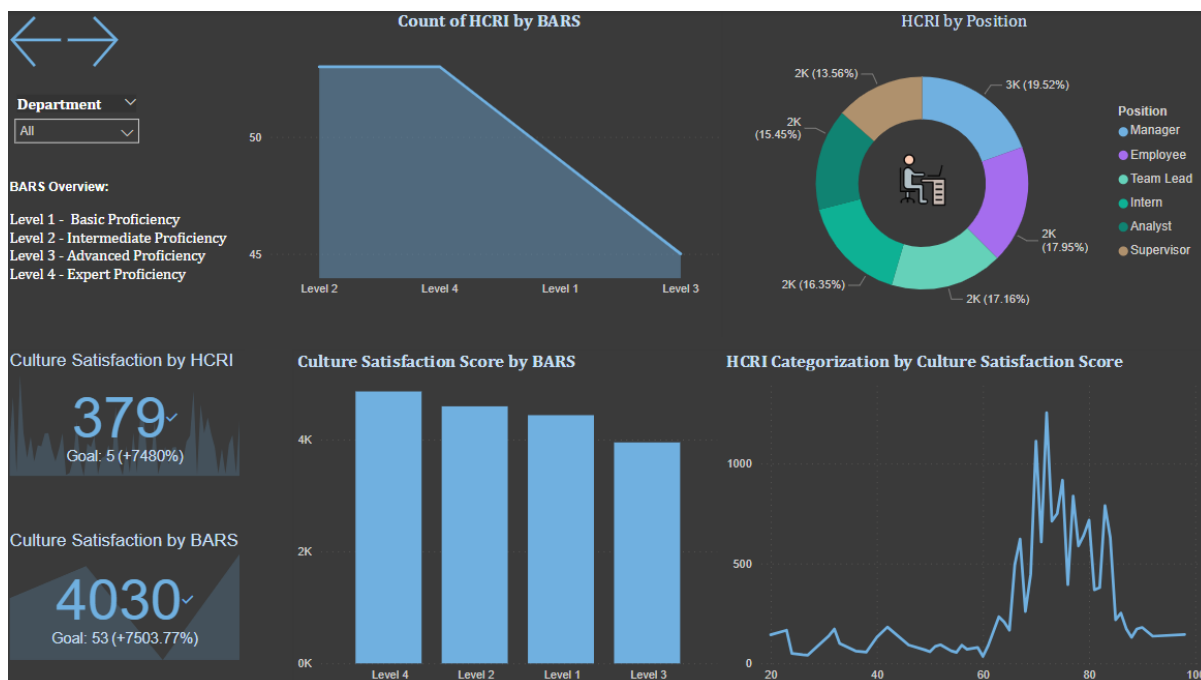
Descriptive Analysis:



Culture:



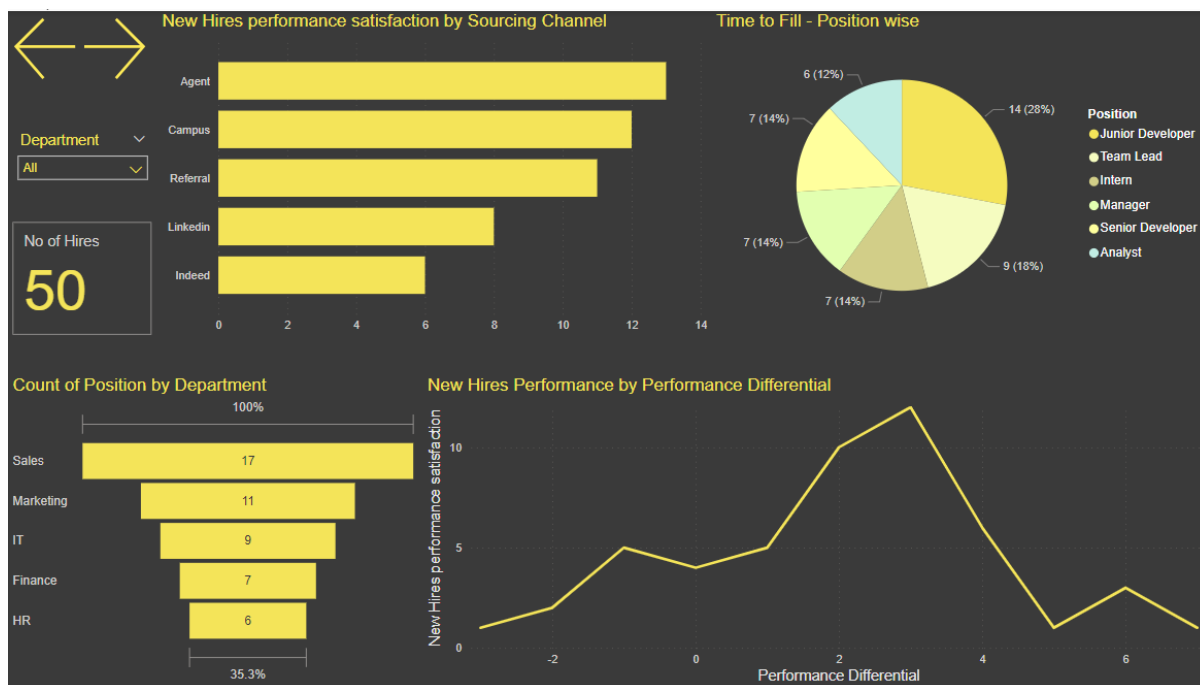
Competency:



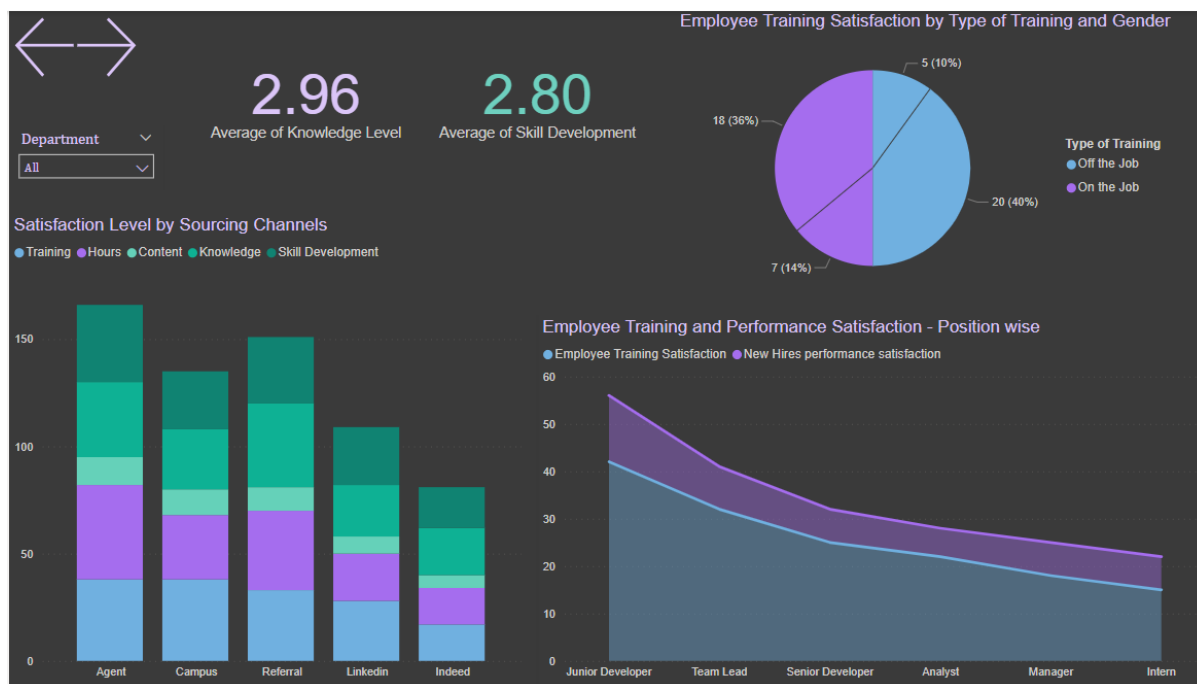
Cost & Productivity:



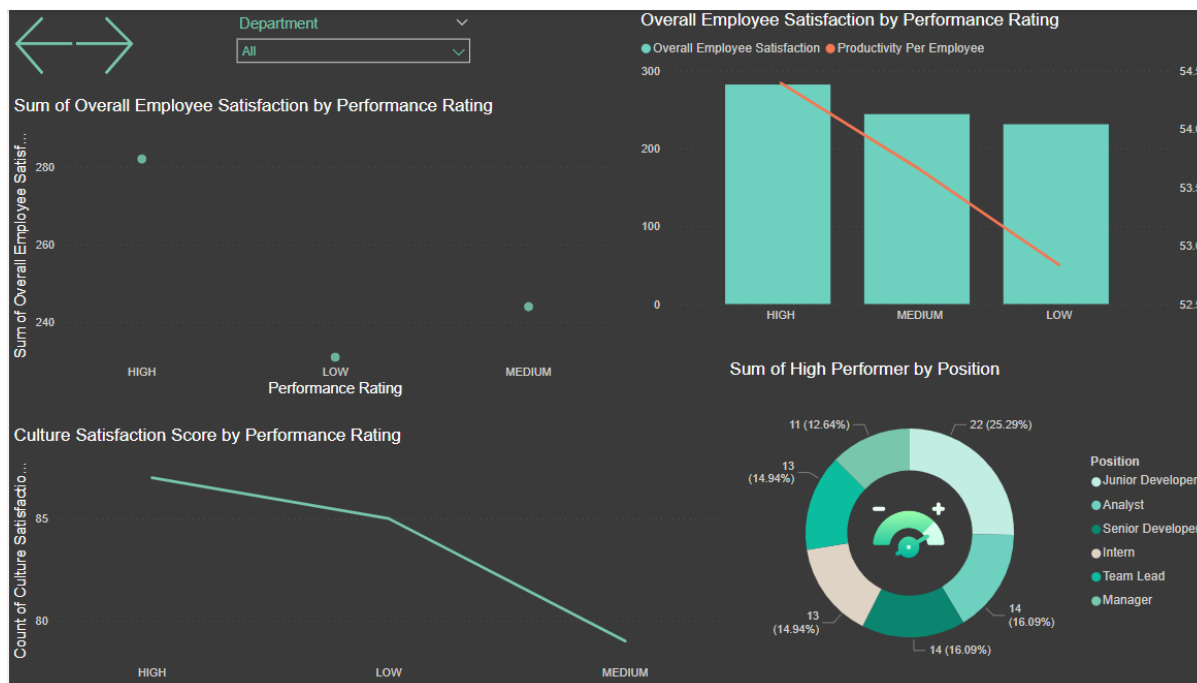
Recruitment:



Training & Development:



Performance:



Talent Management:

