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1. Introduction to the Company- 24 Group of Schools

The 24 Group of Schools is a distinguished and progressive educational network that has been at the forefront of nurturing young minds and shaping future leaders for over two decades. With a commitment to excellence, innovation, and holistic development, the 24 Group of Schools has earned a reputation for providing a world-class education experience. Our institutions are dedicated to fostering not just academic brilliance but also instilling values, character, and a global perspective in our students.

2. PROJECT SUMMARY

1.1. Project Objective

The objective of this project is to outline the findings based on problems and areas of focus in 24 Group of Schools and suggest needed HR improvements and initiatives to use to be carried by 24 Group of Schools in order to achieve its goals.

1.2. Scope of Project

- Findings and 24 Group of Schools strategy map based on given case study
- High level guidelines to carry the following HR improvements and initiatives and suggested metrics to use:
    - Culture
    - Competency
    - Cost and Productivity
    - Recruitment
    - Training and Development
    - Performance
    - Talent
- Operational analytics

3. FINDINGS AND STRATEGY MAP

<u>FINDINGS</u>

1. Embracing Customer Intimacy:

   Much like the 24 schools network, a focus on creating a personalized experience for students, parents, and staff can enhance satisfaction and engagement within the school community. Developing communication platforms and services that address individual needs is key.

2. Prioritizing Confidentiality and Authenticity:

   Upholding confidentiality and authenticity, much like these schools, is paramount in handling sensitive information daily. Robust data security measures and a reputation for trustworthiness are essential to attract and retain students and parents.

3. Streamlined Onboarding and Niche Specialization:

   Simplifying the induction process and providing specialized training to staff can help schools stand out in the competitive education sector, mirroring the approach of the 24 schools network.

4. Cultivating Diversity and Inclusion:

   Following the example of the 24 schools network, promoting diversity in the workforce, including gender, culture, and location, can lead to a richer educational experience. Initiatives to balance gender ratios and foster an inclusive environment are crucial.

5. Investing in Employee Development:

   Much like the 24 schools network's dedication to employee training and development, schools should invest in continuous professional development for their educators and staff to improve the quality of education provided.

6. Addressing Attrition and Succession Planning:

   Schools can learn from the 24 schools network's approach to identifying and addressing reasons for attrition. Developing strategies for retaining talent and implementing succession planning can safeguard institutional knowledge.
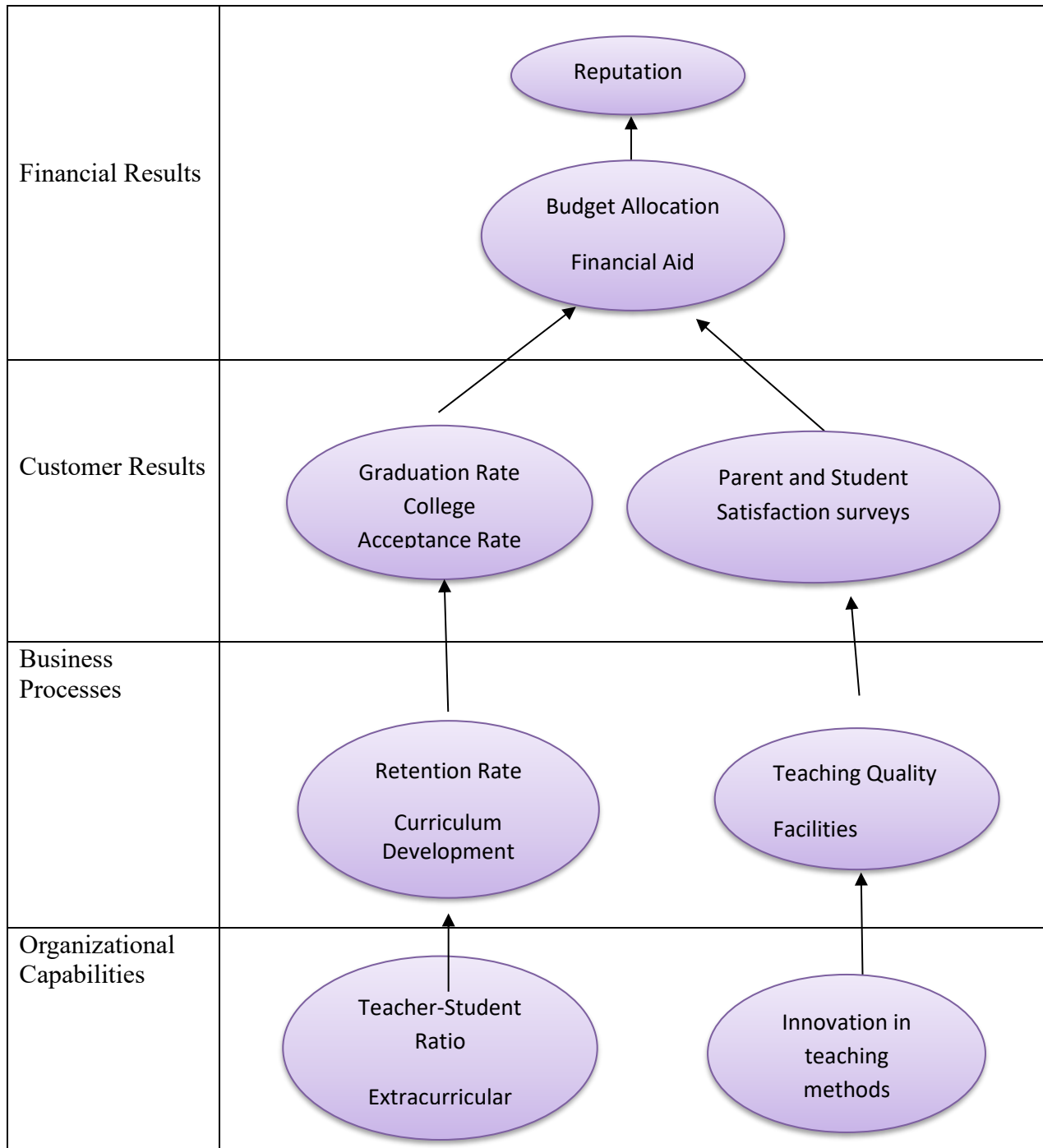
7. Enhancing Communication Skills:

   Effective communication is vital in the education sector. Schools should provide training to staff in developing strong communication skills, ensuring clear and positive interactions with students, parents, and colleagues, similar to the 24 schools network.

8. Measuring Employee Engagement:

   Like the 24 schools network, schools should periodically assess employee engagement and satisfaction to identify areas for improvement and create a positive workplace culture.

STRATEGY MAP

Financial Results	**Reputation** ← **Budget Allocation / Financial Aid**
Customer Results	**Graduation Rate / College Acceptance Rate** — **Parent and Student Satisfaction surveys**
Business Processes	**Retention Rate / Curriculum Development** — **Teaching Quality / Facilities**
Organizational Capabilities	**Teacher-Student Ratio / Extracurricular** — **Innovation in teaching methods**

4. HR OBJECTIVES WITH KEY QUANTIFIABLE MEASURES

24 Group of Schools should adopt a deliberate and thoughtful strategy for the evolution of its organizational culture, with an emphasis on nurturing cohesion among its staff, cultivating a more supportive school environment, and guaranteeing that faculty and staff are well-versed in and committed to the institution's fundamental values and principles.

4.1 Culture

For "24 Group of Schools," it's essential to cultivate a cohesive and optimistic school culture by imparting the institution's core values to both staff and students. It's imperative that these values are comprehensible to everyone involved, but any modifications should be undertaken with care and a deliberate approach.

Objective	HR Measure	Target	Initiative
Working conditions	Percentage of employees reporting a comfortable and safe working environment	95%	Conduct ergonomic assessments of workspaces and make necessary adjustments.
			Ensure regular maintenance and cleanliness of the workplace.
			Implement safety protocols and provide safety training.
Relationship between colleagues	Employee engagement survey results indicating positive working	90% favourable rating	Organize monthly team-building activities and social events.
			Establish a mentorship program to foster positive relationships. Offer conflict resolution
			workshops and training.
Job Satisfaction	Employee satisfaction survey score	Increase by 10% within one year	Conduct quarterly employee engagement surveys to gather feedback.
			Create action plans based on survey results to address concerns.
			Recognize and reward outstanding performance with a quarterly "Employee of the Month" program.
Rewards and Awards	Competitive salary and benefits	Increase by 20%	Conduct a market salary analysis to ensure competitive compensation.
			Implement a performance-based bonus program tied to individual and team achievements.
			Introduce an annual awards ceremony to recognize exceptional contributions.

	benchmarked against industry standards		
Workload and Support	Employee feedback on resource adequacy and support services	90% satisfaction rate	Conduct workload assessments to identify and address areas of excessive work pressure.
			Provide training and development opportunities to enhance employee skills.
			Assign dedicated mentors to new employees for guidance and support during their initial months.

Insights:

4.1.1 Employee Engagement or Satisfaction Rating– Increase employee satisfaction with the school culture.

4.2 Competency

"24 Group of Schools" is committed to providing its students with the best possible learning experience. To achieve this goal, we are embarking on an analysis project centered around competency-based education.

24 Group of Schools should introduce and track the following "Competency" metrics:

Objective	HR Measure	Target	Initiative
Human Capital Readiness	Current competency of the employee in the function/Competencies required for the function	Improve the HCRI to 90%	Continuous support and encouragement
BARS	Current competency level of the employee	25% of the staff with level 2. 26% of the	Encouraging and rendering financial support

		Staff with level 3 23% of the staff with level 4	to achieve the Level 4 specified in BARS.
Academic Syllabus	Frequency of updating the academic syllabus of every year	Update the syllabus for each class every 2 years	Continuous assessment of the recent topics in the market.
Quality of academic advice	Number of assessments over a period	1 Periodic test every month 1 Slip test every week	Continuous evaluation throughout the term

4.2.1 Insights:

4.2.1.1 BARS- Improve the BARS level of staffs with maximum under Level 3 and Level 4.

4.2.1.2 HCRI - Improve the HCRI of the school staffs from 86% to 90%.

4.3 Cost and Productivity

24 Group of Schools can introduce and track the following Key Cost and Productivity Metrics:

Objective	HR Measure	Target	Initiative
Cost per Student	Total school expenditures divided by the number of students	₹5,000	Implement a new budgeting system that allocates resources more efficiently.
Teacher Salary	Average teacher salary	₹60,000	Offer competitive salaries and benefits to teachers.
Administrative Costs	Total administrative expenditures divided by the total school budget	10%	Streamline administrative processes and eliminate unnecessary bureaucracy.
Graduation rate	Percentage of students who graduate from high school in four years	90%	Provide students with the support they need to succeed, such as tutoring and mentoring.

Insights:

4.3.1 Effective Mode of Hiring- Analyzing all modes of hiring and separation rate in each

4.4 Recruitment

Recruitment management is of utmost importance at 24 Group of Schools as it ensures the selection of the most qualified candidates. By implementing effective recruitment practices, the school can identify individuals who possess the necessary skills, motivation, and alignment with the school's values, ensuring their success within our educational institution. This not only enhances the engagement of our staff but also significantly contributes to the overall success of our school.

24 Group of Schools should introduce and track the following <u>Key Recruitment Metrics</u>:

Objective	HR Measure	Target	Initiative
Increase the number of qualified teacher applicants	Number of teacher applicants per open position	50	Partner with local universities and job boards to promote open positions.
Reduce the time to fill open teacher positions	Time to fill open teacher positions	30 days	Streamline the hiring process and provide timely feedback to candidates.
Improve the diversity of the teacher workforce	Percentage of teachers from minority groups	25%	Create a more inclusive hiring process and develop a more diverse talent pipeline.
Increase the retention rate of new teachers	Percentage of new teachers who remain employed after 3 years	90%	Provide new teachers with comprehensive onboarding and support.
Improve the quality of teacher instruction	Percentage of teachers rated as effective or highly effective	95%	Provide professional development opportunities to all teachers.

4.5 Training and development

At 24 Group of Schools, fostering a culture of continuous learning and development is of paramount importance in nurturing our students' growth and potential. We are committed to tailoring our educational approach to meet the unique needs and aspirations of each student. By doing so, we empower our students to acquire the knowledge and skills essential for their academic success and personal development.

24 Group of Schools should introduce and track the following <u>Key Training and Development Metrics</u>:

Objective	HR Measure	Target	Initiative
Increase teacher knowledge and skills in using technology in the classroom.	Percentage of teachers who complete at least 10 hours of technology-related professional development per year.	80%	Offer a variety of technology-related professional development opportunities, including online courses, workshops, and conferences. Provide teachers with time and resources to complete professional development activities.
Improve student engagement and learning outcomes.	Percentage of students who meet or exceed grade-level standards in all core subjects.	75%	Implement research-based instructional strategies and curricula. Provide teachers with professional development opportunities on how to implement these strategies and curricula effectively. Regularly monitor student progress and make adjustments to instruction as needed.
Reduce teacher turnover.	Percentage of teachers who remain with the school district for more than 3 years.	90%	Create a positive and supportive work environment. Provide teachers with opportunities for professional growth and advancement. Offer competitive salaries and benefits.

4.5.1. Insights:

4.5.1.1 Training Hours per employee- Time invested by the school for an employee's training and development

4.6 Performance

At 24 Group of Schools, performance management plays a pivotal role in driving organizational success. It involves a systematic process aimed at enhancing employee productivity, aligning individual goals with the school's objectives, and fostering a culture of continuous improvement.

24 Group of Schools recognizes the significance of performance management as a means to monitor, evaluate, and enhance the performance of its staff.

The performance management system at 24 Group of Schools is designed to recognize and reward high achievers, identify areas for improvement, and offer opportunities for skill development and growth. This not only ensures that employees are motivated and engaged but also contributes to the overall success of the school.

24 Group of Schools should introduce and track the following <u>Performance Metrics</u>:

Objective	HR Measure	Target	Initiatives
Increase student achievement in math and science	Standardized test scores	Increase math and science test scores by 5% each year	- Provide professional development opportunities for teachers in math and science. - Implement new math and science curricula that are aligned with state standards. - Provide students with additional support in math and science, such as tutoring and after-school programs.
Improve student attendance	Attendance rate	Increase student attendance rate to 95%	- Work with parents and families to identify and address barriers to attendance. - Implement a school-wide attendance incentive program. - Provide students with support and encouragement to attend school regularly.
Reduce student behavioural problems	Number of disciplinary incidents	Reduce the number of disciplinary incidents by 10% each year	- Implement a school-wide positive behavior support program. - Provide teachers with training on classroom management strategies. - Work with students and families to address the root causes of behavioral problems.
Improve teacher morale	Employee satisfaction survey	Increase employee satisfaction scores by 5% each year	- Provide teachers with opportunities for professional development and growth. - Create a positive and supportive work environment. - Recognize and reward teachers for their hard work and dedication.

4.7 Talent

To help "24 Group of Schools" develop a strong and reliable workforce, it is crucial to focus on inspiring and retaining highly skilled individuals. "24 Group of Schools" must seek out individuals with unique talents who are committed to advancing their careers in the field of education. This approach will empower "24 Group of Schools" to identify exceptional educators and essential roles within the organization, ultimately resulting in enhancements across various processes, such as student support, academic quality management, and curriculum design.

24 Group of Schools should introduce and track the following Key Talent Metrics:

Objective	HR Measure	Target	Initiatives
Increase student achievement in math and science	Standardized test scores	Increase math and science test scores by 5% each year	Provide professional development opportunities for teachers in math and science. Implement new math and science curricula that are aligned with state standards. Provide students with additional support in math and science, such as tutoring and after-school programs.
Improve student attendance	Attendance rate	Increase student attendance rate to 95%	Work with parents and families to identify and address barriers to attendance. Implement a school-wide attendance incentive program. Provide students with support and encouragement to attend school regularly.
Reduce student behavioral problems	Number of disciplinary incidents	Reduce the number of disciplinary incidents by 10% each year	Implement a school-wide positive behavior support program. Provide teachers with training on classroom management strategies. Work with students and families to address the root causes of behavioral problems.
Improve teacher morale	Employee satisfaction survey	Increase employee satisfaction scores by 5% each year	Provide teachers with opportunities for professional development and growth. Create a positive and supportive work environment. Recognize and reward teachers for their hard work and dedication.

5. Operational Analytics

5.1. Culture Analysis

Sample Data:

	Working Conditions	Relationship with Colleagues	Job Satisfaction	Companys Policy	Rewards and Awards	Workload and Support
0	15	8	12	17	11	7
1	13	9	16	12	15	8
2	13	9	16	12	12	9
3	12	12	11	13	12	11
4	14	16	11	18	13	12

Employee Satisfaction Level:

High   115
Low   85

Based on Position:

Satisfaction
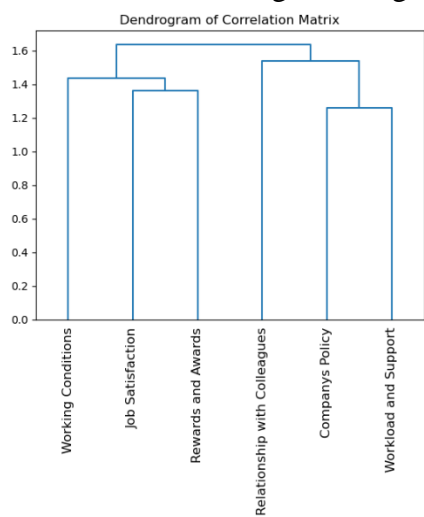High   Teacher
Low   Teacher

Based on Age:

Satisfaction
High   58
Low   48

Correlation heatmap:
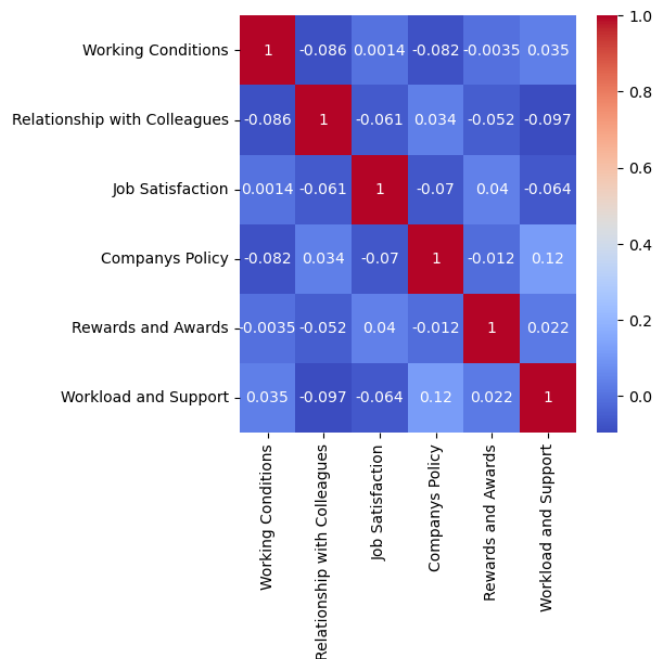
Hierarchial Clustering Dendrogram:

Dendrogram of Correlation Matrix

5.2. Competency Analysis

Sample Data:

	ID	Name	Age	Experience	Position	BARS Level	HCRI
0	1	Emily Johnson	41	5	KG Teacher	2	0.766667
1	2	Liam Smith	52	18	Teacher	3	0.858333
2	3	Olivia Martinez	53	13	Office Assistant	1	0.950000
3	4	Noah Williams	30	24	Teacher	2	0.858333
4	5	Ava Brown	55	11	Teacher	3	0.858333

Maximum count of staffs in each BARS level based on their position:
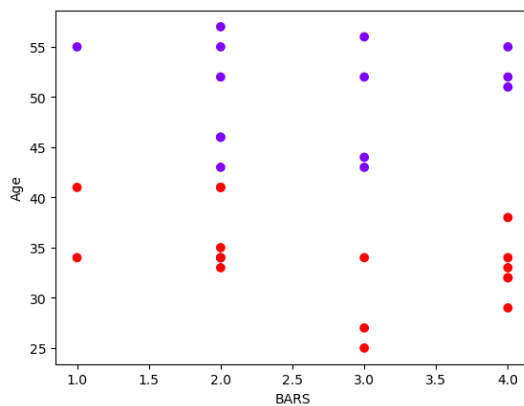
BARS Level
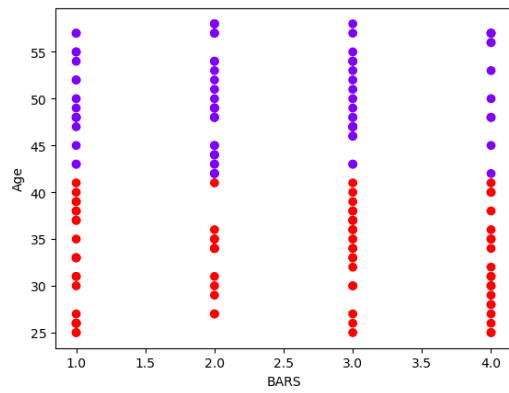1   Teacher
2   Teacher
3   Teacher
4   Teacher

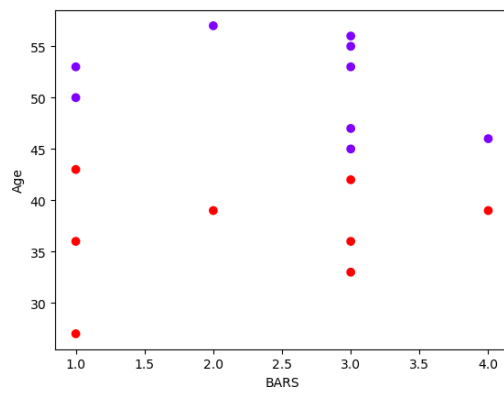K-Means Clustering based on Age and BARS Level for each position:
KG Teacher:

Teacher:

Office Assistant:

5.3. Cost and Productivity Analysis
Sample Data:

|	ID	Name	Age	Experience	Position	BARS Level	HCRI	Salary
0	1	Emily Johnson	41	5	KG Teacher	2	0.766667	26281
1	2	Liam Smith	52	18	Teacher	3	0.858333	32989
2	3	Olivia Martinez	53	13	Office Assistant	1	0.950000	39392
3	4	Noah Williams	30	24	Teacher	2	0.858333	38576
4	5	Ava Brown	55	11	Teacher	3	0.858333	37002

Linear Regression:

```
Enter age:43
Enter experience:6
Expected salary: 32035
```

Correlation heatmap:
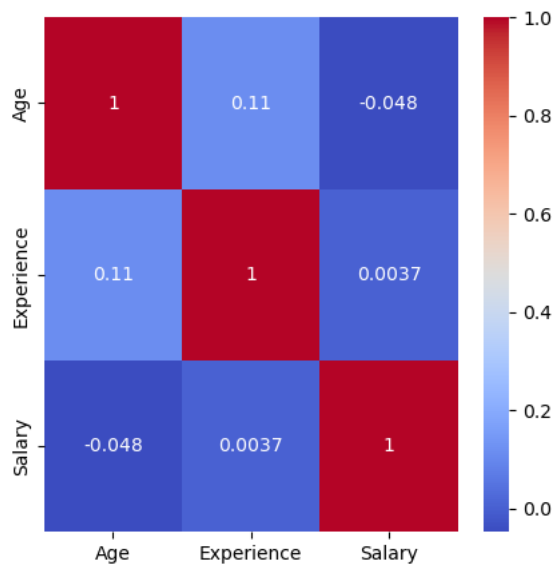
5.4. Recruitment Analysis

Sample Data:

	Name	Role	Interview Time(in mins)	Cost per head	Principal Satisfaction	Hired or Not
0	Sophia Mitchell	KG Teacher	15	252	2	0
1	Ethan Anderson	Teacher	30	265	5	0
2	Olivia Turner	Office Assistant	11	213	8	1
3	Liam Parker	Teacher	39	243	10	1
4	Ava Bennett	Teacher	19	305	2	0

Count of staffs hired on their positions:

Role

KG Teacher	2
Office Assistant	1
Teacher	3

Correlation heatmap:
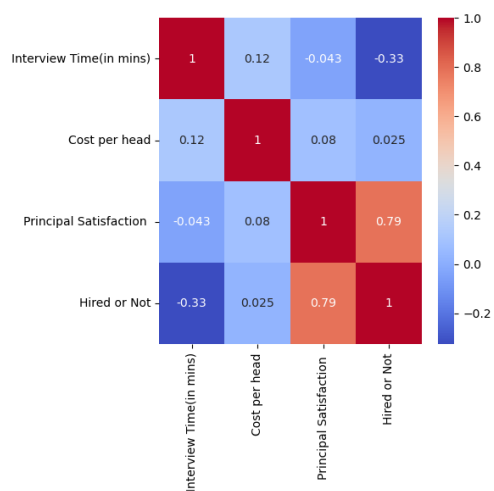
5.5. Training and development Analysis
Sample Data:

	ID	Name	Age	Experience	Position	BARS Level	HCRI	Salary	Q1	Q2	...	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Score	No. of hours	Completed Training
0	1	Emily Johnson	41	5	KG Teacher	2	0.766667	26281	2	4	...	5	3	3	3	1	5	5	34	17	0
1	2	Liam Smith	52	18	Teacher	3	0.858333	32989	3	3	...	3	5	2	3	1	5	2	32	29	0
2	3	Olivia Martinez	53	13	Office Assistant	1	0.950000	39392	1	3	...	4	5	3	5	3	2	1	31	12	0
3	4	Noah Williams	30	24	Teacher	2	0.858333	38576	5	2	...	3	2	5	3	1	3	4	31	20	0
4	5	Ava Brown	55	11	Teacher	3	0.858333	37002	3	3	...	4	2	3	1	4	3	3	27	29	0

Count of staffs who completed their training:

Position	Count
KG Teacher	11
Office Assistant	10
Teacher	64

Correlation Heatmap:
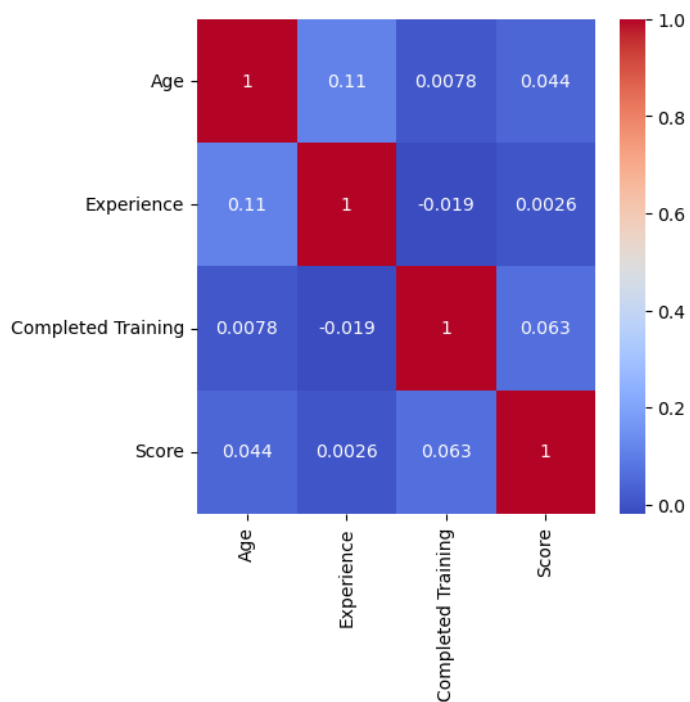
5.6. Performance Analysis

Sample Data:

	Name	HCRI	Experience	Completed Training	Performance Score
0	Emily Johnson	0.766667	5	0	66
1	Liam Smith	0.858333	18	0	84
2	Olivia Martinez	0.950000	13	0	88
3	Noah Williams	0.858333	24	0	86
4	Ava Brown	0.858333	11	0	89

Kmeans Clustering:
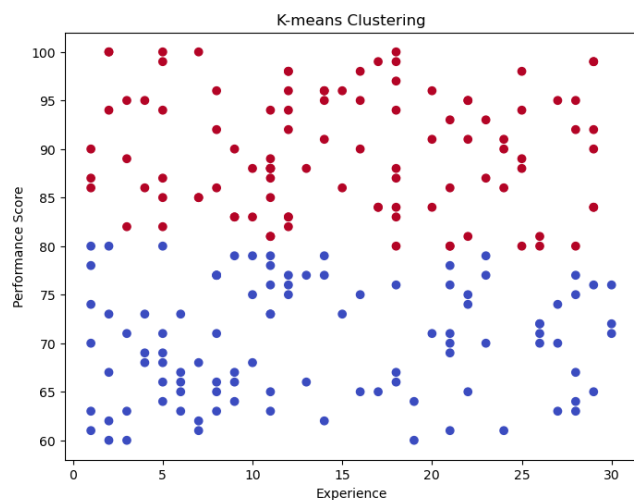
5.7. Talent Analysis

Sample Data:

	Name	HCRI	Training Score	Performance Score
0	Emily Johnson	0.766667	34	66
1	Liam Smith	0.858333	32	84
2	Olivia Martinez	0.950000	31	88
3	Noah Williams	0.858333	31	86
4	Ava Brown	0.858333	27	89

KMeans Clustering:
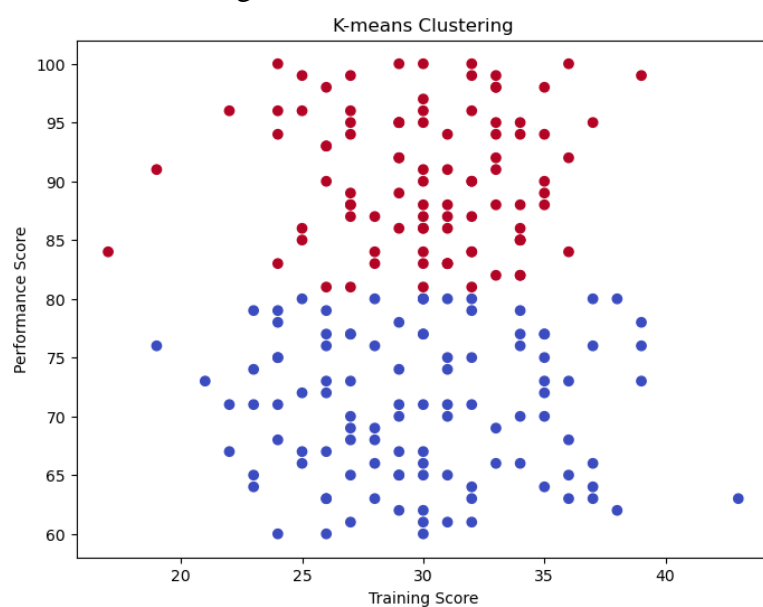
Talent Level based on KMeans Clustering:

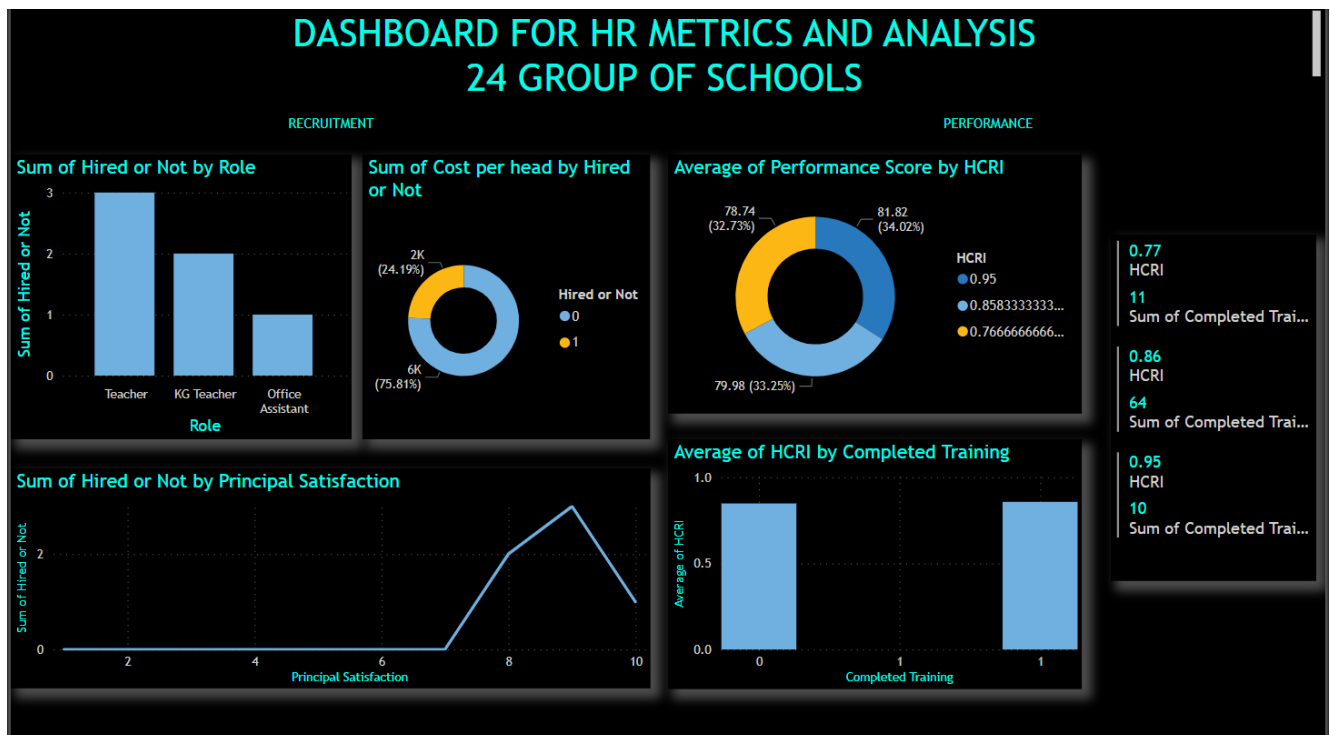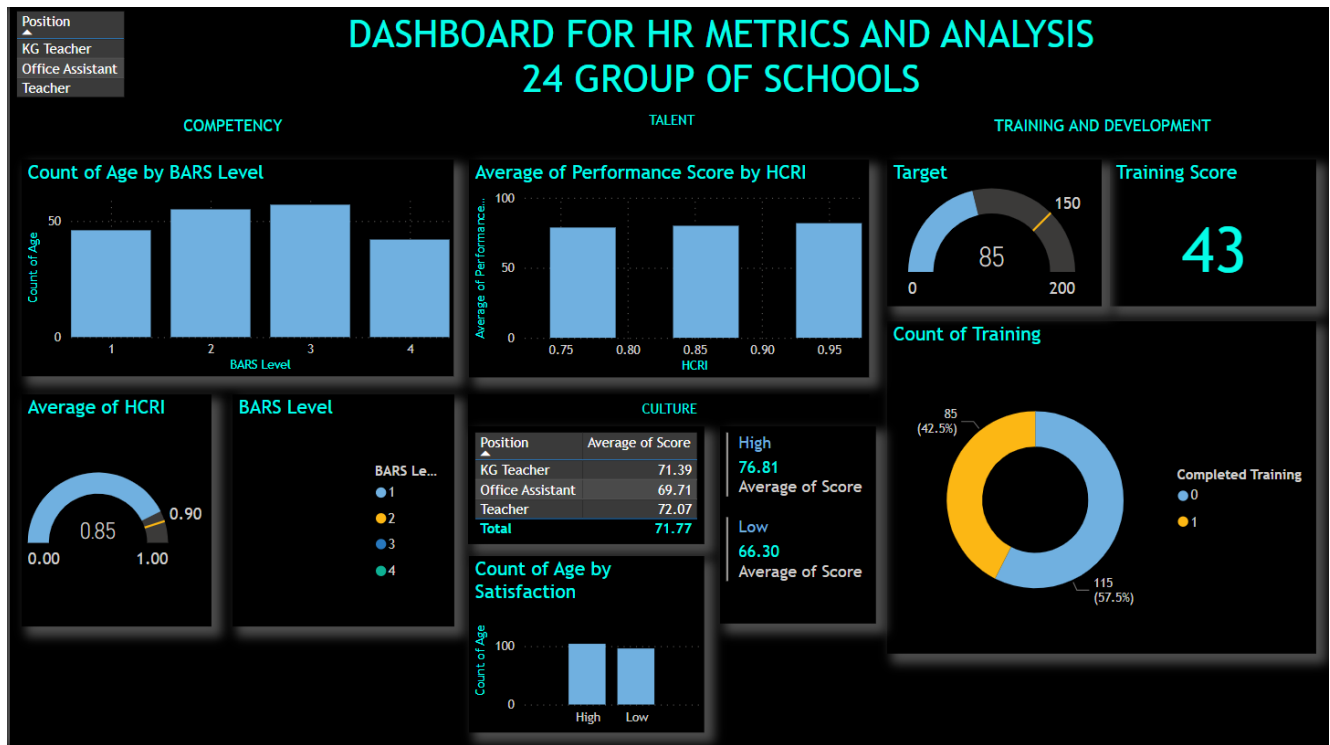|	HCRI	Training Score	Performance Score	Talent Level
0	0.766667	34	66	Low
1	0.858333	32	84	High
2	0.950000	31	88	High
3	0.858333	31	86	High
4	0.858333	27	89	High

Talent Level Count:

Talent Level

High   94

Low   106

5.8. Dashboard

6. Annexure

6.1. Culture:

```python
import pandas as pd
import seaborn as sb
import matplotlib.pyplot as plt
df=pd.read_excel(r"D:\CIT\SEM-V\17MDC55 Files\Data.xlsx",sheet_name="Data")
df.head()
print("Data description:")
df.describe()
df=df.drop_duplicates()
df[df.duplicated()]
#Null values check
print(df.isnull().sum())
df1=df.iloc[:,5:]
df1.head()
fnames=['Working Conditions','Relationship with Colleagues','Job Satisfaction','Companys Policy','Rewards
and Awards','Workload and Support']
f_dict=dict()
for i in range(0,6):
    f_dict[fnames[i]]=df1.iloc[:,4*i+1:4*i+5].sum(axis=1)
fac_df=pd.DataFrame(f_dict)
fac_df.head()
fac_df["Score"]=fac_df.iloc[:,0:6].sum(axis=1)
mean=int(fac_df[["Score"]].mean())
fac_df.loc[fac_df['Score'] >= mean, 'Satisfaction'] = 'High'
fac_df.loc[fac_df['Score'] < mean, 'Satisfaction'] = 'Low'
count=fac_df["Satisfaction"].value_counts()
print(count)
cor=fac_df.iloc[:,0:6].corr()
plt.figure(figsize=(5,5))
sb.heatmap(cor,cmap="coolwarm" , annot = True)
plt.show()
linkage=hierarchy.linkage(cor,method='ward')
dendo=hierarchy.dendrogram(linkage,labels=cor.columns,orientation='top')
plt.xticks(rotation=90)
plt.title("Dendrogram of Correlation Matrix")
plt.show()
fac_df1=df[['ID', 'Name', 'Age', 'Experience', 'Position']].join(fac_df)
fac_df1['Position'].groupby(fac_df1['Satisfaction']).max()
fac_df1['Age'].groupby(fac_df1['Satisfaction']).max()
```

6.2. Competency:

```python
import pandas as pd
import numpy as np
```

```
import seaborn as sb
import matplotlib.pyplot as plt
from scipy.cluster import hierarchy
from tabulate import tabulate
from sklearn.preprocessing import StandardScaler
df=pd.read_excel(r"D:\CIT\SEM-V\17MDC55 Files\Data.xlsx",sheet_name="BARS and HCRI",header=1)
df.head()
df['Position'].groupby(df['BARS Level']).max()
df1={}
for pos in df['Position'].unique():
    pos_df=df[df['Position']==pos]
    df1[pos]=pos_df
k_df=pd.DataFrame(df1["KG Teacher"])
t_df=pd.DataFrame(df1["Teacher"])
o_df=pd.DataFrame(df1["Office Assistant"])
k_df['BARS Level']=k_df['BARS Level']
t_df['BARS Level']=t_df['BARS Level']
o_df['BARS Level']=o_df['BARS Level']
from sklearn.cluster import KMeans
import matplotlib.pyplot as plt
bars=k_df['BARS Level'].values
age=k_df['Age'].values
feat=np.column_stack((bars,age))
model=KMeans(n_clusters=2,n_init=10)
model.fit(feat)
label = model.predict(feat)
cluster_centers = model.cluster_centers_
k_df['Cluster'] = label
k_df['Cluster'].groupby(k_df['Cluster']).count()
plt.scatter(bars,age, c=label, cmap='rainbow')
plt.xlabel('BARS')
plt.ylabel('Age')
plt.show()
bars=o_df['BARS Level'].values
age=o_df['Age'].values
feat=np.column_stack((bars,age))
model=KMeans(n_clusters=2,n_init=10)
model.fit(feat)
label = model.predict(feat)
cluster_centers = model.cluster_centers_
o_df['Cluster'] = label
plt.scatter(bars,age, c=label, cmap='rainbow')
plt.xlabel('BARS')
plt.ylabel('Age')
plt.show()
```

```
o_df['Cluster'].groupby(o_df['Cluster']).count()
bars=t_df['BARS Level'].values
age=t_df['Age'].values
feat=np.column_stack((bars,age))
model=KMeans(n_clusters=2,n_init=10)
model.fit(feat)
label = model.predict(feat)
cluster_centers = model.cluster_centers_
t_df['Cluster'] = label
plt.scatter(bars,age, c=label, cmap='rainbow')
plt.xlabel('BARS')
plt.ylabel('Age')
plt.show()
t_df['Cluster'].groupby(t_df['Cluster']).count()
```

6.3. Cost and Productivity:
```
import pandas as pd
import statsmodels.api as sm
import seaborn as sb
import matplotlib.pyplot as plt
from sklearn.linear_model import LinearRegression
df=pd.read_excel(r"D:\CIT\SEM-V\17MDC55 Files\Data.xlsx",sheet_name="BARS and HCRI",header=1)
df.head()
x=df[['Age','Experience']]
y=df['Salary']
reg=LinearRegression()
reg.fit(x,y)
age=float(input("Enter age:"))
we=float(input("Enter experience:"))
sal=reg.predict([[age,we]])
print("Expected salary:",int(sal))
df1=df[['Age','Experience','Salary']]
cor=df1.corr()
plt.figure(figsize=(5,5))
sb.heatmap(cor,cmap="coolwarm" , annot = True)
plt.show()
```

6.4. Recruitment:
```
import pandas as pd
import numpy as np
import seaborn as sb
import matplotlib.pyplot as plt
from scipy.cluster import hierarchy
from tabulate import tabulate
from sklearn.preprocessing import StandardScaler
```

```
df=pd.read_excel(r"D:\CIT\SEM-V\17MDC55 Files\Data.xlsx",sheet_name="Recruitment")
df.head()
df.groupby('Role')['Hired or Not'].sum()
df1=df.iloc[:,2:]
cor=df1.corr()
plt.figure(figsize=(5,5))
sb.heatmap(cor,cmap="coolwarm" , annot = True)
plt.show()
```

6.5. Training and Development:
```
import pandas as pd
import numpy as np
import seaborn as sb
import matplotlib.pyplot as plt
from scipy.cluster import hierarchy
from tabulate import tabulate
from sklearn.preprocessing import StandardScaler
df=pd.read_excel(r"D:\CIT\SEM-V\17MDC55 Files\Data.xlsx",sheet_name="BARS and HCRI",header=1)
df.head()
df.groupby('Position')['Completed Training'].sum()
df1=df[['Age','Experience','Completed Training','Score']]
cor=df1.corr()
plt.figure(figsize=(5,5))
sb.heatmap(cor,cmap="coolwarm" , annot = True)
plt.show()
```

6.6. Performance:
```
import pandas as pd
import numpy as np
import seaborn as sb
import matplotlib.pyplot as plt
from scipy.cluster import hierarchy
from tabulate import tabulate
from sklearn.preprocessing import StandardScaler
df=pd.read_excel(r"D:\CIT\SEM-V\17MDC55 Files\Data.xlsx",sheet_name="Performance")
df.head()
from sklearn.cluster import KMeans
scaled_df = df.iloc[:,1:]
scaled_df.head()
k_opt=2
model = KMeans(n_clusters=k_opt,random_state =42,n_init=104)
model.fit(scaled_df)
scaled_df['labels'] = model.labels_
cluster_centers = model.cluster_centers_
plt.figure(figsize=(8, 6))
```

```
plt.scatter(scaled_df['Experience'], scaled_df['Performance Score'] , c=scaled_df['labels'], cmap='coolwarm')
plt.title('K-means Clustering')
plt.xlabel('Experience')
plt.ylabel('Performance Score')
plt.show()
scaled_df.head()
```

6.7. Talent:
```
import pandas as pd
import numpy as np
import seaborn as sb
import matplotlib.pyplot as plt
from scipy.cluster import hierarchy
from tabulate import tabulate
from sklearn.preprocessing import StandardScaler
df=pd.read_excel(r"D:\CIT\SEM-V\17MDC55 Files\Data.xlsx",sheet_name="Talent")
df.head()
from sklearn.cluster import KMeans
scaled_df = df.iloc[:,1:]
scaled_df.head()
k_opt=2
model = KMeans(n_clusters=k_opt,random_state =42,n_init=104)
model.fit(scaled_df)
scaled_df['Talent Level'] = model.labels_
cluster_centers = model.cluster_centers_
plt.figure(figsize=(8, 6))
plt.scatter(scaled_df['Training Score'], scaled_df['Performance Score'] , c=scaled_df['Talent Level'],
cmap='coolwarm')
plt.title('K-means Clustering')
plt.xlabel('Training Score')
plt.ylabel('Performance Score')
plt.show()
scaled_df['Talent Level']=scaled_df['Talent Level'].replace([1,0],['High','Low'])
scaled_df.head()
scaled_df['Talent Level'].groupby(scaled_df['Talent Level']).count()
```

7.CONCLUSION

24 Group of Schools is a thriving educational institution that places a strong emphasis on continually improving its HR processes. As the 'Peoples' Department, the school is dedicated to paying close attention to employee feedback and devising strategic plans that benefit both its staff and the institution as a whole.

Following a thorough analysis of data through graphical representations, correlation, and regression, the conclusions from the findings are detailed below:

1. The school invests significantly in the professional development of its staff to enhance their job profiles and skills necessary for their roles. However, the analysis indicates that while an adequate number of training sessions are being provided, the feedback scores for these trainings are only moderate. To address this, 24 Group of Schools should focus on delivering more effective training programs and regularly check in with employees to ensure that the training aligns with their day-to-day work needs. This approach will enable the school to tailor its training initiatives more effectively.

2. Employee Performance Ratings follow a distribution that resembles a bell curve, indicating that performance ratings are distributed relatively evenly. However, most of the analysis does not show significant correlations when linked to employee performance.

3. The Employee Engagement Survey, recently conducted, sheds light on the engagement and job satisfaction levels of the staff. Results indicate that most employees are highly engaged, with an average tenure of around 7 years. Nevertheless, other measures do not seem to correlate with the moderately high engagement levels of employees in the institution. To address this, 24 Group of Schools should consider introducing innovative cultural and value practices that resonate with and engage its employees more effectively.

4. Attrition rates are relatively high within the institution, especially among younger employees, with a significant portion being recent graduates from schools and universities. The school should focus on assisting these employees in understanding their career paths within the institution by offering growth opportunities and development programs. Additionally, attractive incentives should be implemented to retain them and deter them from seeking opportunities elsewhere. The institution has managed to mitigate the effects of attrition by maintaining a high turnover rate.

5. Diverse and inclusive measures should be a primary concern for the institution. The data reveals that the gender ratio is not proportionately balanced. 24 Group of Schools should take steps to create more diverse conditions, as doing so can contribute to the creation of a more engaging and inclusive work environment.

------------- End of Project---------------