**Strategy and HR Analytics:**

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[**https://public.tableau.com/app/profile/dhanush.kolur/viz/IBMHR\_16882952515850/Dashboard1?publish=yes**](https://public.tableau.com/app/profile/dhanush.kolur/viz/IBMHR_16882952515850/Dashboard1?publish=yes)

**Introduction to IBM**

International Business Machines Corporation is a multinational technology firm, the corporate headquarters of the worldwide technology giant is in Armonk, New York. The extensive selection of hardware and software solutions offered by IBM, which include PCs, servers, storage systems, and networking infrastructure, has earned it notoriety. The business also offers consulting services and cutting-edge technological solutions including cloud computing, data analytics, and artificial intelligence (AI). The invention of the first programmable computer, the innovative use of the first hard drive, and the discovery of the first computer virus were all made possible because of IBM's unwavering dedication to research and development which helps in solving the queries of the customers and clients(Patrizio, A., & Moore, J. (2023)).

**Vision and Mission**

Being the largest and most successful provider of information technology worldwide is IBM's vision. Successful in helping customers use technology to solve their problems. successfully using this incredible technology to reach new consumers. Important since we will still play a significant role in financing this area of the economy. The IBMer is by far IBM's finest creation. IBM is constantly working on converting the highest potential of an open hybrid cloud and AI strategy to life for our clients and partners throughout the world because we think that by using intelligence, reason, and science, we can enhance business, society, and the human condition(*IBM Mission, Vision & Values*. (n.d.).).

**Values**

* Commitment to the success of each client.
* Innovation matters, both for our business and the global community.
* Confidence and accountability in every interaction (IBM Corporation. (n.d.).).

**Strategic Analysis of IBM:**

**SWOT Analysis**

**Strength**

* IBM has a strong brand. The business holds the 22nd spot in the 2016 Brand Finance report. As of now, the brand is worth $31.786 billion.
* The corporation concentrates on two factors when it comes to its long-term growth plan. One is to draw customers in with their cutting-edge, aggressive, and effective commercial apps. The provision of long-term value to the shareholder is the second. It aids them in launching their software, systems, and service capabilities.
* Diversified business portfolio and Strong brand reputation.

**Weakness**

* Expensive services and software solutions: Because IBM's services and software solutions are sometimes seen as expensive, smaller firms and organisations with limited resources may find it difficult to use them.
* Mainly serve large enterprises: Due to IBM's historical concentration on servicing big businesses, its potential and reach in the small- and medium-sized company (SMB) sector may be constrained.

**Opportunities**

* Increase offers in services and software divisions: By increasing its offerings in these divisions, IBM can take advantage of the rising demand for services and software solutions. This might involve researching future sectors and technology as well as creating solutions for SMBs.
* Growing demand for cloud-based services: As cloud computing usage increases, IBM has the chance to further develop its cloud-based services and solutions to meet the changing demands of businesses in various sectors.

**Threats**

* Competition in the market for cloud computing is getting more intense as the technology becomes more widely used. IBM's market share and profitability may be impacted by rivalry from both established companies and recent startups.
* Slowing global economic growth: When the economy is struggling, businesses may reduce their IT spending, which might have an impact on IBM's operations. IBM must handle any difficulties brought on by a weaker economy and modify its plans as necessary(. *IBM SWOT Analysis | EdrawMax Online*. (n.d.)).

**PESTLE Analysis**

**Political:**

* The Russia-Ukraine conflict has had a substantial influence on IBM's global business strategy and changed the political environment.
* The principal market for IBM, the USA, has imposed strict regulations that have hampered the company's ability to service other international markets.
* IBM and other technology firms may face higher tax rates because of the new tax legislation, particularly in the software and service sectors.

**Economic:**

* As nations reopen their borders, the global economy is gradually returning to its pre-pandemic levels.
* The 3,900 staff layoffs resulted in a 2% decrease in the value of IBM's shares.
* IBM has one of the biggest international workforces in the world.

**Social:**

* The development of AI and cloud technologies has emphasised the value of diversity by creating a climate that allows people from different backgrounds to succeed.
* The integration of minority groups into all facets of business life is stressed by demographic changes.

**Technological:**

* The IT sector's business procedures have changed because of AI's explosive expansion.
* To combat cybersecurity risks and protect consumer information, IBM will need to make significant security investments.

**Legal:**

* The British government has implemented new rules controlling such arrangements in response to the abuse of confidentiality agreements.
* In reaction to legislation governing the work-from-home culture, IBM is implementing hybrid work environments and responding to new rules(Adamkasi, & Adamkasi. (2023)).

**IBM’s HR Commitment**

To support a diversified workforce, IBM aggressively recruits qualified employees from other markets. To improve employee well-being, professional development, and general job happiness, the organization runs several HR initiatives and programs. IBM has won several honours for its initiatives, and it is still committed to developing a diverse workforce. Through strategic HR practices, it hopes to acquire a competitive edge through its worldwide people management strategy. IBM relies on three essential HR practices to support continued development: talent mobility, employee engagement, and continuous learning. IBM works to preserve its competitive advantage and sustain growth by putting a strong emphasis on creating a diverse and engaged workforce, encouraging continuous learning, and allowing talent mobility (*HUMAN RESOURCES IN IBM*. (n.d.)),

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**Data**

The data set I chose was from Kaggle I started my research thinking of working on HR’s competitive strategies, and later looking at the following data which had unique variables gave me a great latitude to work on a wide range of use case scenarios. The attributes in the data set are employee\_id, age, age\_group, and attrition which represent employees leaving a company for a variety of reasons, such as retirement, resignation, or termination, and are referred to as attrition, business\_travel,daily\_rate, the department which represents the employee’s department, distance from home, education, employee number, gender, job level, job role, job satisfaction, marital status, monthly income, salary slab, monthly rate number of companies worked, total working years, training times last year, work-life balance, years at the company, years in the current role, years since last promotion years with the current manager, etc. these attribute names are self-explanatory. And it was a noise-free dataset which helped in establishing a relationship while designing the dashboard.

**Introduction to the dashboard and its element**

The dashboard was created using Tableau, the datasets are extracted from Kaggle which is an open source. We have used IBM’s HR dataset where we have made the visualisation of a few major attributes required for the HR activities. Using this dashboard major strategies can be made to deal with the industry, business environment, competitors, and other major events. This visualisation can be used for

* Recruitment and Talent Acquisition
* Employee Engagement and Retention
* Performance Management
* Learning and Development
* Compensation and benefits
* Diversity, Equity, and Inclusion
* HR metrics for building strategies

In the below discussion, we see how the dashboard can be used for the above scenario.

* **Hiring and retention**

A role of an employee is a major part of IBM’s success and hiring the right person for a specific role, the HR should go through various data and the task will become tedious, to save time and increase efficiency, using our dashboard we can make strategies for this looking at few graphical visualisation.

* Hiring strategies

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Description automatically generated

During hiring, expertise in specific roles should be considered in our dashboard we can see the different departments such as HR, R&D, and sales where individual job roles can be seen and considered during hiring. Looking at this we can focus on the given age groups for similar roles. And we can contact them to hire using different social media platforms considering age as the attribute. For a few roles if freshers are required for a specific role, they can be targeted and the hiring process can be done by analysing using the dashboard. This makes it easier to evaluate the recruiting process's diversity and inclusion efforts and spot any potential biases or underrepresented groups(Zhang, H., & Feinzig, S. (n.d.)).

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It has been challenging for IBM to recruit and keep top employees because of pandemic and various hiring problems. IBM must alter its hiring strategy in order to overcome these problems. These modifications can involve.

1. Accelerating the hiring process: IBM needs to simplify and improve its hiring process.

2. The hiring process must be more open, and IBM needs to provide candidates with more information about where they stand in the process.

3. IBM must be more willing to hire new graduates and other entry-level workers and lessen its emphasis on employing experienced people.

4. Expanding its recruiting outside IBM needs to increase its hiring abroad, particularly in Europe and Asi

* Employee hiring and retention by education field

A screenshot of a graph

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While hiring specific qualifications of the person being employed should be considered which are necessary in the fulfilment of the vacancy, so looking at this we can see the total number employees with the specific qualifications, based on that strategies can be made to see the vacancies based on number of employees present in the specific field and number of vacancies can also be calculated using this. Also, HR can see insights into the required qualifications for hiring a candidate. The qualifications can be compared with the below department where department and job role can be announced while hiring and strategies can be made for that in IBM using this dashboard .

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* **Attrition**

High attrition rates have become a major issue across industries, affecting businesses everywhere. Even though the term "attrition" is frequently used, its exact meaning is sometimes not completely understood. Attrition is essentially the progressive loss of workers due to retirement, resignation, or sad events like death. It is a euphemism for staff departure or turnover. A professional and well-suited employee's departure leaves a hole that causes the loss of important contacts, knowledge, and talents. Modern HR professionals and managers place a high priority on tactics that promote the best possible organisational growth, development, and effectiveness.

In recent years, IBM's attrition rate has significantly increased. The attrition rate increased from the 14.4% reported in 2020 to 16.1% in 2021. This number is higher than the IT sector's generally reported attrition rate of about 12%.

The increased attrition rate at IBM has been caused by a number of causes. The company's current reorganization activities, which have forced job cuts and created anxiety among staff, are one important issue. Additionally, the increased competition in the technology sector has made it easier for workers to investigate alternative career alternatives that could have better prospects(*Let’s create*. (n.d.)).

* **Employee History**

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While hiring background checks of the employee should be thoroughly done to ensure the quality hiring this can also reduce the attrition as the HR would have conducted comprehensive background checks. In our dashboard we have shown employee history where companies worked before is shown based on that HR strategies can be made like cross checking the reason for switching,education,professional qualification, and red flags such as fraud, criminal records, and other factors responsible for attrition.

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Description automatically generatedIn our dashboard, we have considered various attributes responsible for attrition like average salary percentage, salary hike, employee count, job environment, and job satisfaction. In this, we have distinguished the attributes, and based on the employee ratings we can see the high and low bar in the above graphical representation with that HR can make strategies like regular discussions related to salary should be conducted, job environment should be operated peacefully, regular appreciations should be given to the employees, diversity, and inclusiveness should be focused, offering career development programs like masters scholarships, Ensuring a safe workplace reduces the likelihood of incidents that could lead to employee dissatisfaction or attrition. Transparency strategies should be implemented to ensure trust between the company and employees, and regular events such as sports, excursions, and other extracurricular should be conducted and included to maintain the work-life balance ,well being programmes should be introduced.

* **Gender equality**

In the modern-day gender equality is a important factor which should be considered while hiring for a specific position. A key component of HR procedures that supports equity, diversity, and inclusion within an organisation is gender equality in recruiting. In order to ensure gender equality throughout the employment process, HR departments are essential.

A screenshot of a company

Description automatically generated with low confidence

The graphical pie chart says that the equality is ensured but the job roles are in the other graph are dominated by male by this we can say that there is less opportunity for a particular gender. This might lead to a loss of talent, a false picture about IBM as it is a world-class company and in the coming days it will be expanding to various parts of the world gender equality will paint a bad picture to reduce this here are some essential ideas and tactics for IBM to advancing gender equality using the dashboard Unbiased Job Descriptions, diverse recruitment, and sourcing, blind resume screening, structured interviews, gender diversity training programs, equal pay and

benefits etc.

* **Market Competition** A picture containing text, screenshot, diagram, parallel

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IBM competes with several IT behemoths, including Amazon, Apple Inc., Oracle Corporation, Google, SAP AG, HP, and Microsoft, are competitors. Monitoring and analysing market competitiveness in the context of HR practises may be done with the use of the above HR dashboard. Company switching from other big giants can be seen, departments to compete with other tech companies can be strengthened, and attrition can be reduced which play a major role in the company’s success. Selling computer hardware, software, and IT infrastructure services is a key component of IBM's business strategy. Governments, financial organisations, healthcare providers, educational institutions, retailers, and huge enterprises use its technology and services. And hiring, retention for specific departments, and strategies related to that can be done with this dashboard(Hughes, J. (2021, September 6)).

**Conclusion**

In our dashboard we have included HR’s key insights for strategical approach to the world and for the market competition like Hiring and retention, Attrition, Employee History, Gender equalit, Market Competition of IBM using various graphical methods like bar graph, heat map, pie chart, line graph etc To enhance employee retention and cultivate a positive work environment, IBM can consider the following recommendations. Firstly, conduct a comprehensive analysis utilizing exit interviews and staff surveys to determine the underlying causes of attrition. Secondly, enhance compensation and benefits to maintain competitiveness, such as implementing regular salary assessments and offering additional incentives. Thirdly, fortify professional development programs by providing robust training, mentorship opportunities, and clear pathways for advancement. Fourthly, foster a positive workplace culture by prioritizing diversity, inclusion, and open communication while promptly addressing concerns. Fifthly, introduce employee appreciation initiatives to recognize and value accomplishments. Additionally, prioritize employee well-being through wellness initiatives and flexible scheduling. Enhancing leadership capabilities can be achieved through people management training. Lastly, continually monitor and evaluate HR initiatives, incorporating employee feedback and retention metrics to drive ongoing improvements. By implementing these recommendations, IBM can enhance employee satisfaction, promote job retention, and elevate overall organizational effectiveness. SWOT and PESTEL analysis are also covered in this report. Using these competitive strategies can be made by HR.

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