

DATA ANALYSIS OVERALL REPORT

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INDEX

- ATLIQ HOSPITALITY ANALYSIS REPORT
- AMAZON SALES ANALYSIS REPORT
- FINANCIAL ANALYTICS REPORT
- EMPLOYEE ATTRITION ANALYSIS REPORT

ATLIQ HOSPITALITY ANALYSIS

Transforming
Strategy with Data
Intelligence

ABOUT COMPANY

- Comes under group of companies called Atiliq Grands.
- Owns multiple five-star hotels in top-tier cities like Mumbai, Bangalore, Hyderabad, Delhi across India
- Serving the hospitality industry for the past 20 years.
- Their main operating income comes from these branches - Atiliq Bay, Atiliq Palace, Atiliq Grands, Atiliq Seasons, Atiliq Exotica, Atiliq City .

STAGNANT ISSUES

- Due to strategic moves from other competitors, they are facing rough competitions in this industry.
- Ineffective decision-making in management is adding fuel to their loss in regaining market.
- Thus, firm is continuously losing its market share and revenue in the luxury/business hotels category.
- Thus, require effective and immediate strategy to overcome this downfall using business intelligence and data analysis on historical data to identify its source of origin responsible for this downfall and come up with a intelligent strategy.

PAST BOOKING INSIGHTS

- Revenue Generation as well number of guest incoming both declined by about 97% in last month July with major hit in Bangalore region (-97%) followed by Delhi, Mumbai(-96%), and Hyderabad(-95%).
- However, this couldn't be due to hostel service since ratings still was stable during this month, but possible reason could be availability of cheaper options or more branches close to populated areas for different class of rooms by other competitor (but cost could be major factor since other class except presidential class were deeply affected thus opening of cheaper options.)
- Additionally guest incomings during weekend has drastically reduced than weekdays possible opening of more options near site-seeing, tourist places or preference changes to resorts, natural camps etc.
- Overall, all branches were deeply affected except for Atilq Palace, Atilq City, Atilq Seasons since they either lie near these trending areas or such weekend destinations doesn't lie in its region or city.

PAST OCCUPANCY PROFILE

- Major striking insights was that the capacity of available services were declined by 85% during mid-July and majorly in top-tier cities like Mumbai(in luxury and business category) and Bangalore (in luxury category specially).
- Additionally average occupancy rate were greatly declined in all room classes except presidential due to opening of greater cheaper options or availability of more competitor branches in favoured locations can be some of main sources to this.
- Seasonal changes in demand patterns - Demand typically drops for luxury hotels during summer vacations as families prefer resorts/budget stays. Occupancy holds up better in presidential suites utilized more by business travelers.
- This is supported by insights that branches like Atilique Bay, Atilique Seasons have suffered less occupancy downfall since they are partially catering to these seasonal changes but rest of branches present deep in cities or far from dominated areas have suffered greater loss in bookings and occupancy.

POSSIBLE STEPS TO OVERCOME



Competitive pricing - Aggressively lower room rates, especially for luxury/business categories to match or beat competition. Focus on weekend/seasonal promotions.



Expand budget offerings - Add more rooms in the affordable/budget categories near tourist/weekend destinations to cater shifting demand patterns.



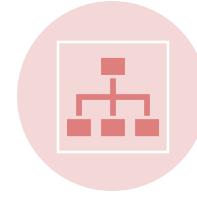
Aggressive marketing - Launch targeted digital campaigns to bring back lost customers and promote new budget offerings. Outreach through influencer marketing.



Cost optimization - Rationalize expenses through energy audits, supply chain improvements without compromising customer experience.



Capitalize on trends - Scout for new locations near upcoming urban hotspots, weekend destinations. Expand selectively through franchising.



Restructure organization - Empower regional heads, streamline decision making to make it more agile and customer-focused. Link incentives to performance.

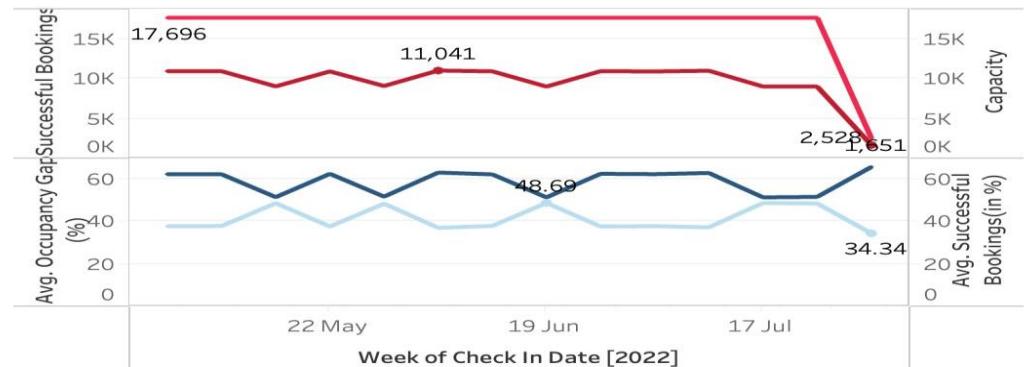
PAST OCCUPANCY DASHBOARD (TABLEAU)

Atiq Hospitality Occupancy Profile

Booking Dynamics



Time-Series View



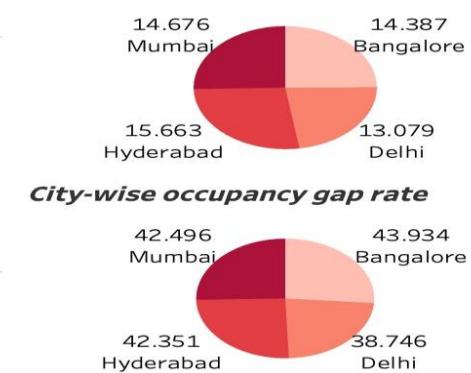
Day-Wise trends



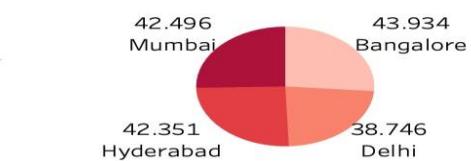
Royalty Occupance



City-wise successful booking rate



City-wise occupancy gap rate



Measure N..
Capacity
Success..

Measure N..
Occup..
Occup..
Occup..
Occup..

Day Type
Weekend..
Weekday..

City
Bangal..
Delhi
Hyder..
Mumb..

PREVIOUS BOOKINGS HIGHLIGHT DASHBOARD

Atliq Hospitality Booking Insights

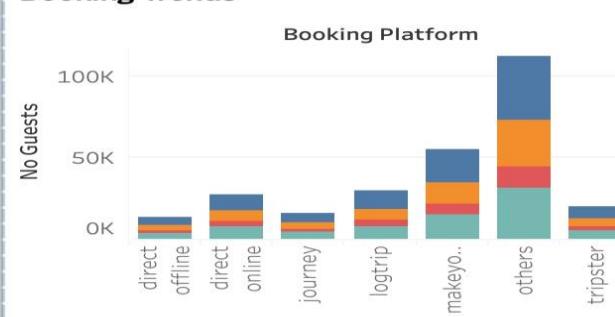
Temporal Analysis



City Impact



Booking Trends



Ratings Statistics



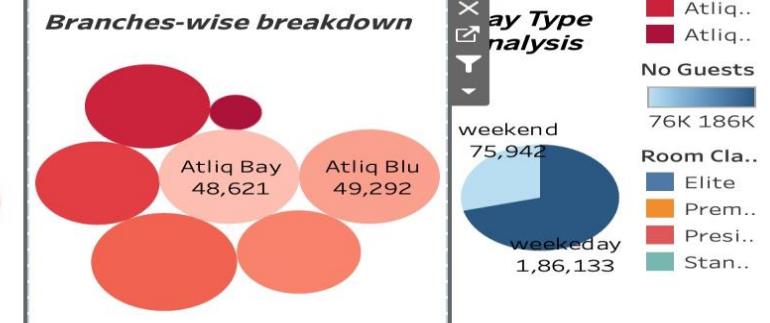
Royalty Preferences



City-wise Guests Breakdown



Branches-wise breakdown



THANKYOU

TABLEAU & CODE FILE LINKS FOR THIS PROJECT:

1)Booking Insights

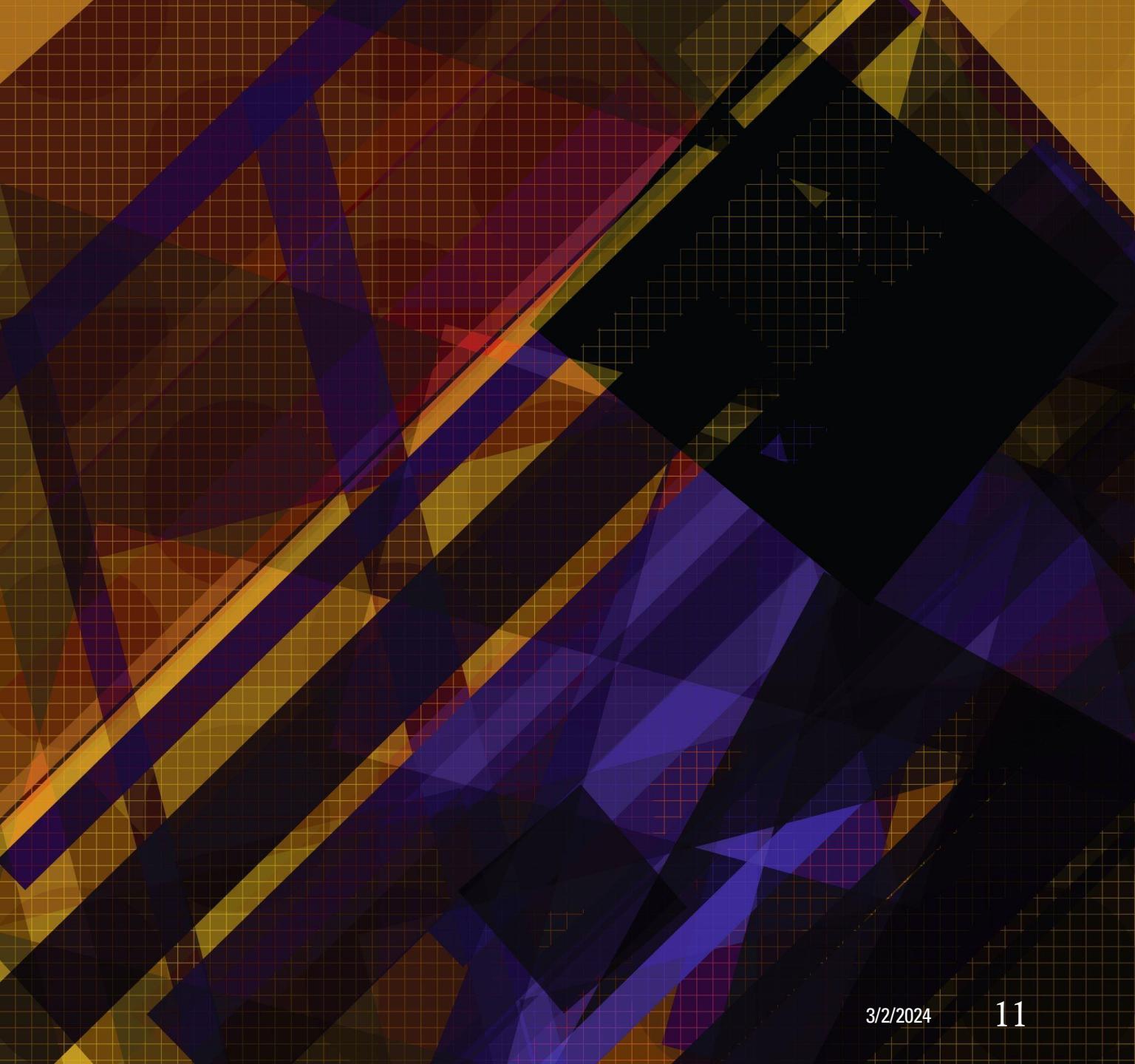
: https://public.tableau.com/app/profile/sahil.barbade/viz/Atiliq_Hospitality_Booking_Insights/Dashboard1?publish=yes

2)Occupancy profile

: https://public.tableau.com/app/profile/sahil.barbade/viz/Atiliq_Hospitality_OccupancyProfile/Dashboard2

3)Preprocessing file in python :

https://colab.research.google.com/drive/1FSy9Dt-jKG_fI9lD6G5rC5oU5BG3tw5B?usp=sharing





Sample Footer Text

3/2/2024

12

PURPOSE OF THIS ANALYSIS

- Sales management has gained importance to meet this endless high-end increasing competition and demand or crave of this popular online shopping.
- There is a high need for improved methods of distribution to reduce cost and to increase profits by introducing optimal and effective strategies and tactical thinking of future growth.
- Here the management today is the most important function in a commercial and business enterprise and proper analysis on its operations and other management has to be done to identify any possible stagnant parameters or other potential obstacles faced during future growth.

TEMPORAL ANALYSIS ON SALES DATA

- The previous sales shows continuous declination in past 3-4 years (2013-207) with anomaly spike increase in sales around 2012-2013.
- Their sales spike increased due to expansion of their offline channels to more richer regions like Middle East (UAE, Saudi etc) and to Northern Africa compared to their earlier covered regions in South African countries only where gross margin or SP had to kept low but in that year even after increasing their SP they were blessed with increased demands so they were benefitted with spike margin and profits after their initial entry to these regions.
- But with followings years the company couldn't keep with this spiked demand even after lowering their unit price and margin and expanding to more of Asian Countries like Russia or Australian Continents since company couldn't tap into their markets and beat local players.

PRODUCT WISE DISTRIBUTION

- With each consecutive years, the company has tried to enter many new markets due to which they are experiencing demands from various new products which company has yet to dig deeper.
- To tap and capture more shares in new entering markets they are trying to launch many SKU's or products in different domains like cosmetics, perishable products, office supplies etc which has different demands in other developing countries.
- But company is struggling to keep up with these newly launched SKU's and products in different markets since they are not able to beat up local big players who have already understood with new and unique demands of their country people and have worked deeply in their hero products which have captured majority market shares.

POSSIBLE STRATEGIES TO IMPLEMENT

First and foremost is to focus on the most established and easier markets to enter countries and regions i.e. understand the real demands of their country people, enter appropriate domain and discover any market gaps present in it and launch appropriate SKU's to capture that market and beat any upcoming players in its domain.

Its unlikely to beat existing big players in these already commoditised domains unless heavy investment, lowering of great margins and launching of highly differentiated useful SKU's or products is implemented.

Launching into richer regions and countries and identifying where citizens would give proper investments and put their money and where tapping of market places is also easier should be first priority market then launching into very remote developing countries where people have less awareness about new products and SKU's they launched.

STRATEGIC KPI'S USED



CGR :CGR calculates the average annual growth rate of a metric over multiple years, assuming constant growth. It provides insights into the long-term trend of growth for a specific metric, such as sales, customer base, etc. CGR helps in understanding the overall growth trajectory and sustainability of a business over time.

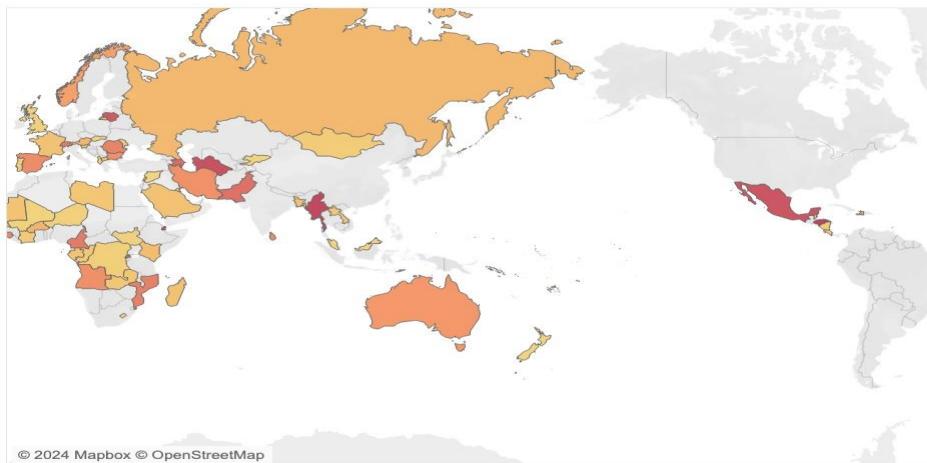


YOY(%) : YoY compares the performance of a metric in the current period with the same period in the previous year, expressing the change as a percentage. It helps in understanding the short-term growth or decline trends. YoY percentage change provides insights into seasonal variations, market trends, and the effectiveness of business strategies.

SALES ANALYSIS

Sales Analysis

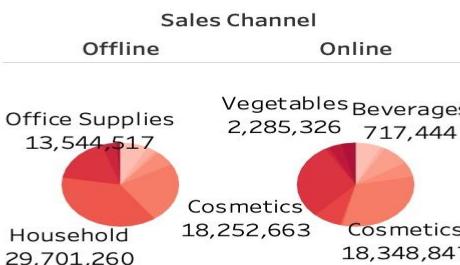
Country Wise Sales Distribution



Continental Sales/Channels Variation



Product Category wise Sales Distribution



Financial Keys Trends



Strategic KPI's



```
mirror_mod = modifier_obj
# mirror object to mirror
mirror_mod.mirror_object
operation == "MIRROR_X":
    mirror_mod.use_x = True
    mirror_mod.use_y = False
    mirror_mod.use_z = False
operation == "MIRROR_Y":
    mirror_mod.use_x = False
    mirror_mod.use_y = True
    mirror_mod.use_z = False
operation == "MIRROR_Z":
    mirror_mod.use_x = False
    mirror_mod.use_y = False
    mirror_mod.use_z = True

selection at the end -add
    ob.select= 1
    mirror_ob.select=1
    context.scene.objects.active
        ("Selected" + str(modifier))
    mirror_ob.select = 0
    bpy.context.selected_objects
        [data.objects[one.name]].sele
print("please select exactly one object")
- OPERATOR CLASSES -
types.Operator):
    X mirror to the selected object.mirror_mirror_x"
    "mirror X"
context):
    context.active_object is not None
```

THANKYOU

- TABLEAU & CODE FILE LINKS FOR THIS PROJECT:
 - 1)Sales Analysis
: https://public.tableau.com/app/profile/sahil.bradade/viz/Amazon_Sales_17048471909870/Dashboard1
 - 2)Preprocessing file in python
: <https://colab.research.google.com/drive/1X6Xi98HpnwMQqvcve7OnKTikTE34nfw7?usp=sharing>

FINANCIAL ANALYTICS

Unlocking
Profitability through
Data Intelligence

PURPOSE OF THIS ANALYSIS

- Analyzing market players' statistics and shareholder demand, so businesses can make informed strategic decisions regarding investment allocation, expansion opportunities.
- Identifying market trends and dynamics within each sector, allowing businesses to capitalize on emerging opportunities and adapt their strategies to changing market conditions.
- Analyzing market-share distribution and shareholder demand enables businesses to identify potential risks and vulnerabilities.
- This analytics provides insights into a company's market position relative to its competitors, helping businesses identify areas for growth, differentiation, and competitive advantage within their respective sectors.

MARKET CAPITALISATION AND TRENDS

- Overall Market has most of company valuation in overvaluation state (where their intrinsic value or performance is less than market's price) , so most likely their market shares are going to drop creating an entry gap for potential companies to enter and capture their markets.
- Currently, this is maximum in technology sector (~99%), bank sector (~95%), healthcare and pharma sector (~70%) and power and electronics sector (~50%).
- Like tech companies like TCS and Infosys etc which are at top of market capital or shares but their lack of predicted performance has allowed tech startups and healthtech companies like thyrocare (maximum P/S ratio or performance) etc focusing on new technologies to enter this market area.
- Followed by banking sector where most of government or state corporate banks like SBI, Allahbad bank, have lacked their performance creating a huge space for private banks like Axis, HDFC, ICIC bank to come as huge players.

SHAREHOLDER DEMANDS & MARKET OVERVIEW

- Among all markets, banking sector has been most demanding and performing market and has an average P/S ratio around ~0.5 where all private banks have overall rate around 7 with Kotak bank performance being out of chart. So, privatisation of this area has been promising and entry of private ventures could be right time.
- Followed by pharma sector where average P/S is around ~6 but few of them have performed outstanding than other companies where entrance of new players could be chance to capture possible market capital.
- But markets places like power and electronic industries is suffering from silent and stagnant performance except for unicorn companies like Reliance Industries or Power grid corporations so it could a very easy step for middle or pre-series company to create a market places in there and hot demand for top shareholders in that market.
- Most of the overvaluing companies lying in tech sector is possible to face a declining shareholder demands and it could be great chance for new ventures and promising startup to take attention of big shareholders to cature big investments and captures majority market shares.

INSIGHTS & POSSIBLE STRATEGIES



The analysis reveals that the market is currently experiencing overvaluation across multiple sectors, including technology, banking, healthcare/pharma, and power/electronics.



This overvaluation indicates a potential misalignment between market price and intrinsic value, posing risks of market corrections or declines in share prices in the near future.



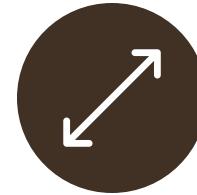
Where appropriate, the company should consider opportunities for market entry or expansion into sectors with favorable market dynamics and growth potential.



This may involve acquiring or investing in companies operating in undervalued sectors or launching new business ventures targeting emerging market segments.

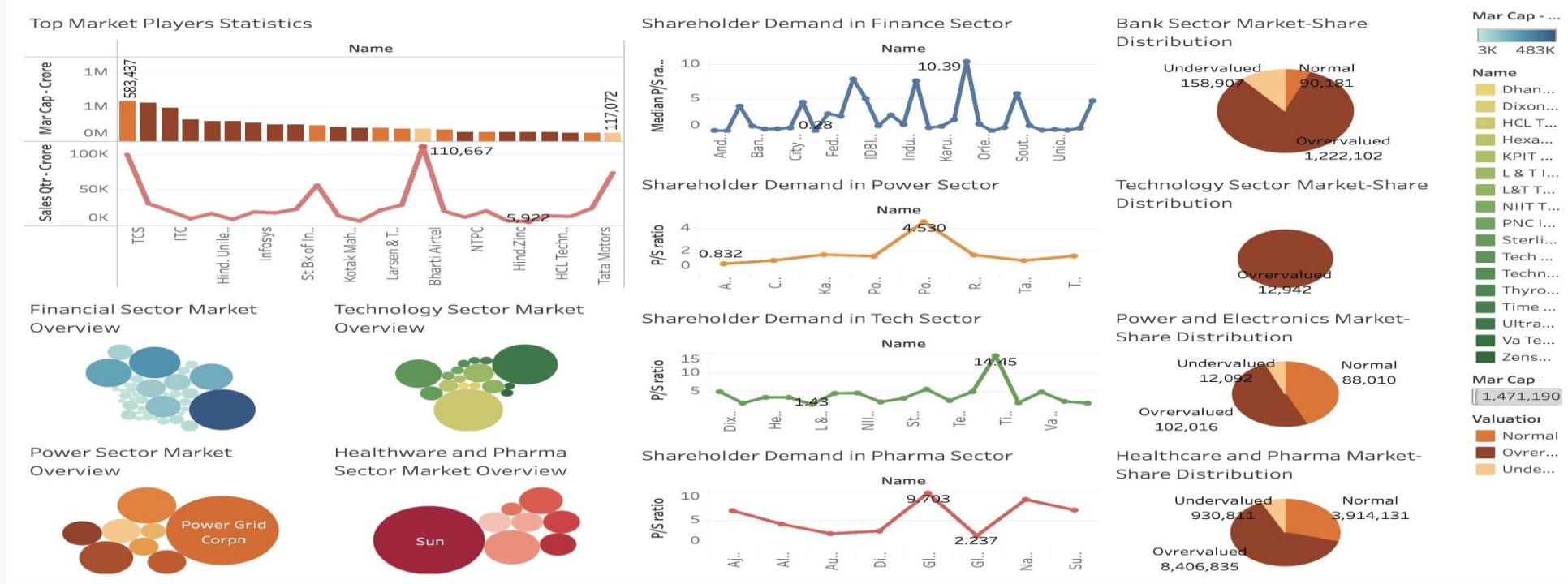


Finally, the company should prioritize risk management and scenario planning to mitigate potential risks associated with market volatility and overvaluation.



This may include implementing hedging strategies, maintaining a diversified portfolio, and regularly monitoring market trends and developments.

FINANCIAL ANALYTICS



[View on Tableau Public](#)





THANKYOU

- TABLEAU & CODE FILE LINKS FOR THIS PROJECT:
 - 1)Financial Analytics : https://public.tableau.com/app/profile/sahil.barbade/viz/Financial_Analytics_17048871839440/Dashboard1
 - 2)Preprocessing file in python : https://colab.research.google.com/drive/1CxdgAz1vlsEwJBgRbBxG72fC_r6Whdyj?usp=sharing

EMPLOYEE ATTRITION ANALYSIS

Unlocking Insights
to Retain Talent

PURPOSE OF THIS ANALYSIS

- Identifying the primary reasons why employees are leaving the company. This could include factors such as dissatisfaction with work environment, lack of career growth opportunities, inadequate compensation, poor management, or personal reasons.
- Determining if there are any early warning signs or predictive indicators that can signal when an employee might be at risk of leaving.
- Developing targeted interventions or initiatives to address the identified issues and reduce attrition.
- Formulating data-driven retention strategies aimed at improving employee satisfaction, engagement, and loyalty.
- Establishing of a system for continuous monitoring and evaluation to track the effectiveness of implemented interventions and measure changes in attrition rates over time.

DATA ANALYSIS ON EMPLOYEE META DATA

- Data Preprocessing and cleaning using EDA of meta data , trimming of any outliers using interquatile range and cleaning missing values , standarization and normalization of data.
- Interpretability of various features on this attrition target and seeing their correlation using spearman and pearson correlation with p-value statistics.
- Feature Importance i.e which features are responsible for more attrition using Principal Component Analysis by visualising which feature more variance i.e responsible for most effects on target.
- Categorising and identifying top 20 features using f-score statistics to identify how feature is effecting and has importance on target and using chi-square score to verify their effects model.

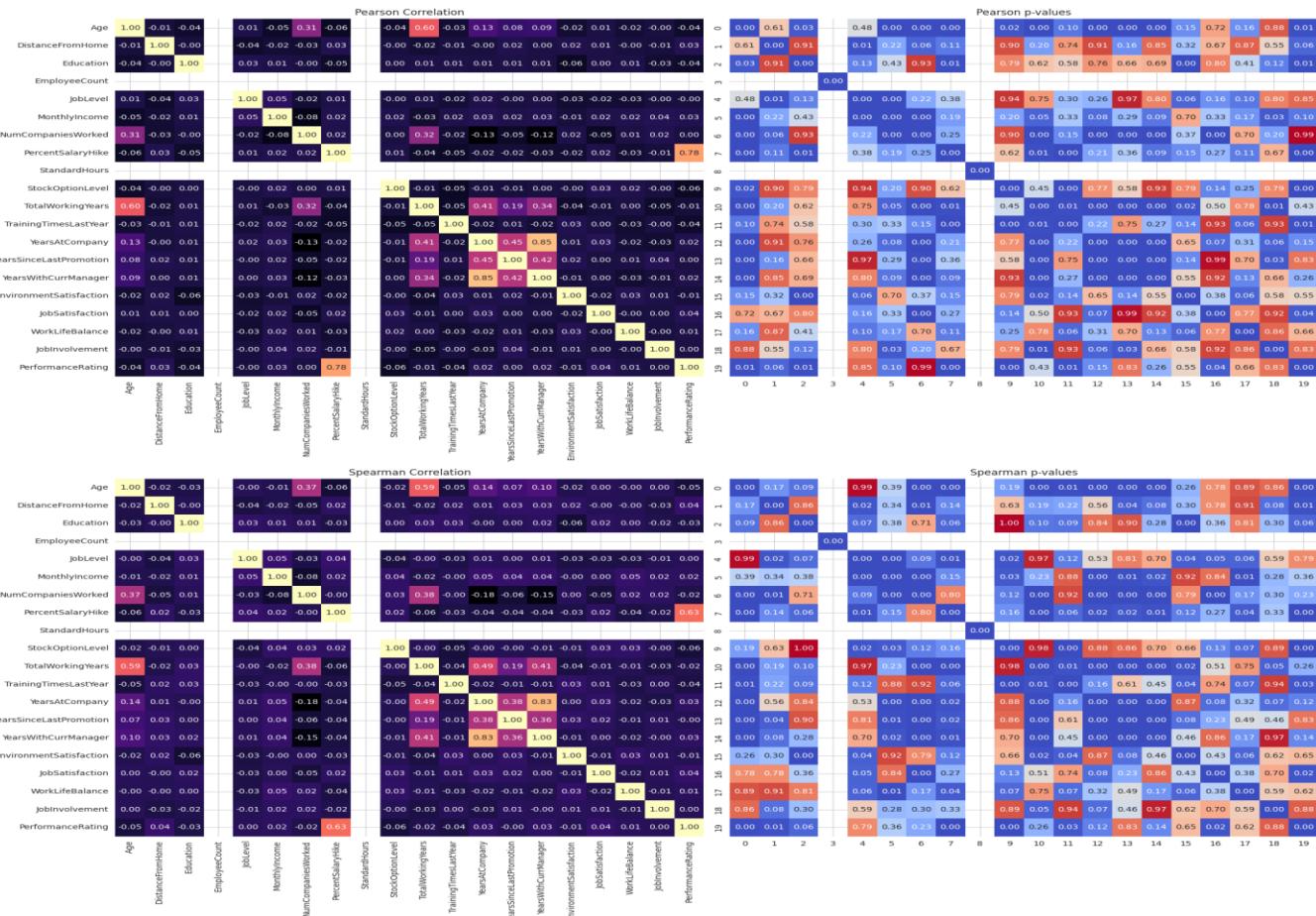
FEATURES USED FOR ANALYSIS

- Features Selected :
- Continuous Variables : 'Attrition', 'Business Travel', 'Department', 'Education Field', 'Gender', 'Job Role', 'Marital Status', 'Over18'
- Categorical or Nominal Variables : 'Age', 'Distance From Home', 'Education', 'Employee Count', 'Job Level', 'Monthly Income', 'Num Companies Worked', 'Percent Salary Hike', 'Standard Hours', 'Stock Option Level', 'Total Working Years', 'Training Times Last Year', 'Years At Company', 'Years Since Last Promotion', 'Years With Current Manager', 'Environment Satisfaction', 'Job Satisfaction', 'Work Life Balance', 'Job Involvement', 'Performance Rating'



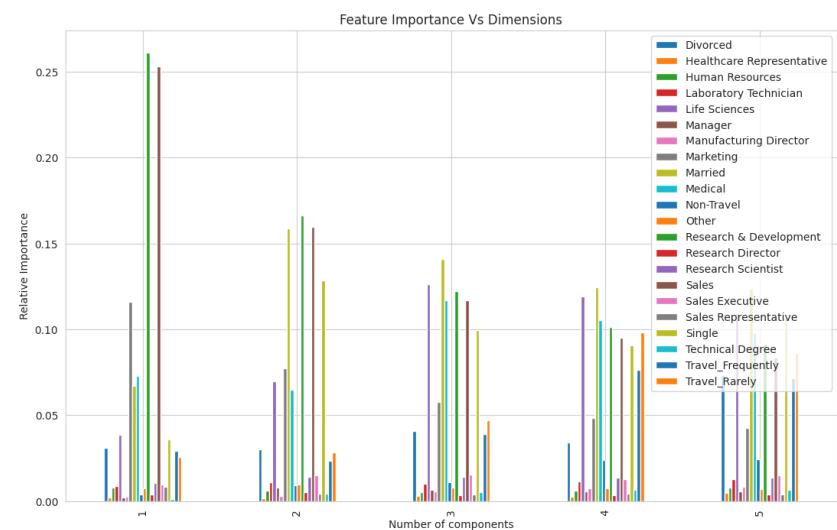
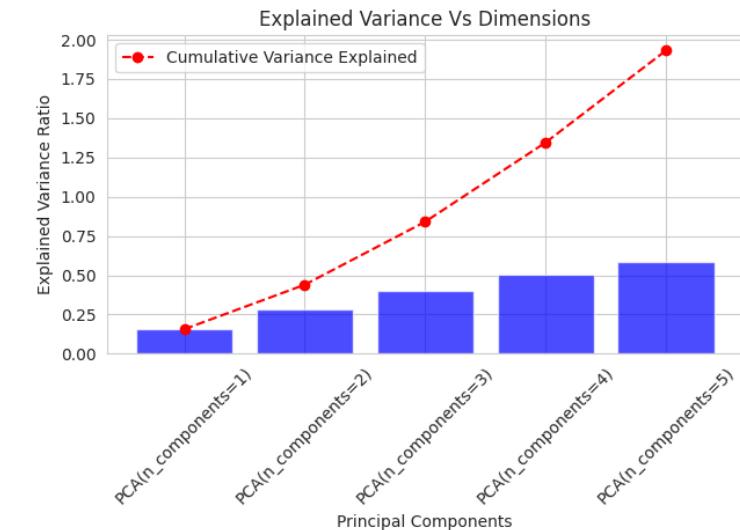
CORRELATION BETWEEN FEATURES

We can directly infer some easy correlation like performance rating with employee salary hike and the experience of employee enrichment, their salary increment by having various portfolios of company workings the employee had before and various skills gained over their age, increase in working with same company relating with number of years after their last promotion etc.

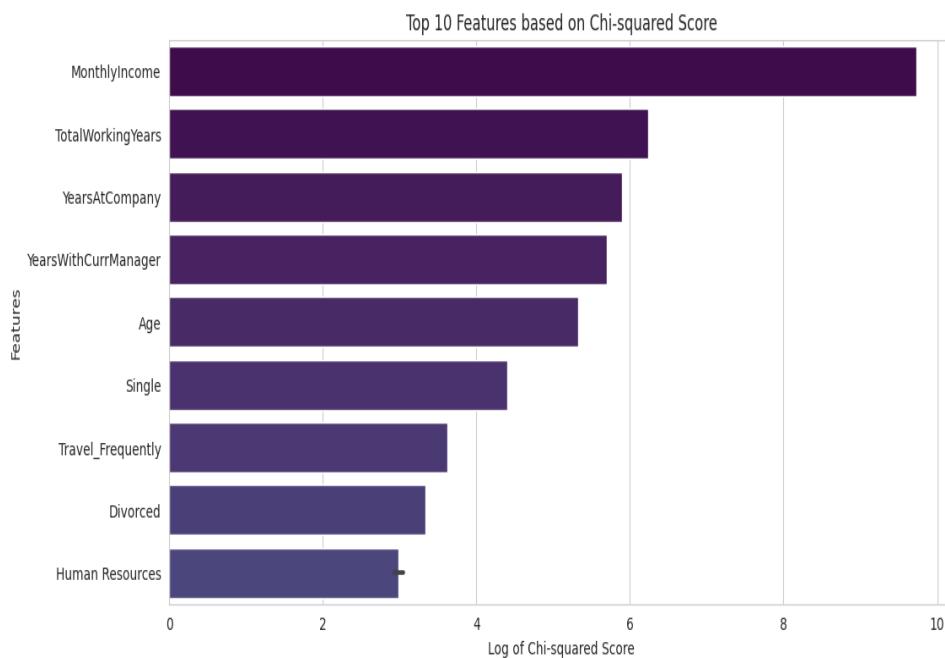


PCA FEATURE ANALYSIS

- Using major principal components i.e about 5 components then divorcee status, married, medical condition single, their travel status are capturing most of variance and have most deep impact on attrition target.
- But on primary scale then their working status like whether they are in Research Scientist or RnD also has major correlation with employee attrition since their frequency of leaving is quite less and they are quite incentivized to work for cause and project and worry less of other conditions like salary, marriage status etc.



USING F-SCORE AND CHI – SQUARE STATISTICS FEATURE CONTRIBUTION TO ATTRITION



- Using f-score and chi-square statistics, we can clearly make vital conclusions that company and HR should focus on choosing a sweet spot for employee's salary based on their performance rating, working age, experience with company and other correlating features analyzed keeping reasonable for company.
- Second would offering of promotion and layoffs based on their years at company, working and feedback of their working with current manager and office culture, and some other social status like their age, married or divorced or single, travel frequency and their commuting status,
- Third would a good proper HR management team who would take effective steps corresponding to following insights and bringing immediate results and effects.



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OVERALL INSIGHTS AND STRATEGIES

- Align salaries with performance ratings, enriching experiences, and prior company portfolios.
- Implement a structured approach to reward high performers and retain talent.
- Regularly evaluate promotion criteria, considering tenure, performance, and manager feedback.
- Promote internal growth opportunities to foster loyalty and motivation among employees.
- Take immediate actions based on data insights to address attrition drivers.
- Invest in HR training and development to enhance employee engagement and retention.
- Recognize the influence of marital status and business travel frequency on attrition rates.
- Tailor retention strategies to accommodate the needs and preferences of employees based on their personal circumstances.
- Combine salary optimization, promotion policies, and HR interventions for a comprehensive retention strategy.
- Focus on creating a positive work environment that promotes employee satisfaction and loyalty.
- Regularly monitor attrition trends and adjust strategies accordingly.
- Stay agile and responsive to changes in employee preferences, market conditions, and organizational dynamics.

THANKYOU

- CODE FILE IN PYTHON

: <https://colab.research.google.com/drive/1rmRuXhI9rhkDTa22n5K7mxDt5Q2cGPSU?usp=sharing>