Detailed Project Report

On

HR ANALYTICS – ABSENTEEISM

iNeuron.ai

Submitted By: -

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Acknowledgments

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Abstract

Employee absenteeism poses a significant challenge for organizations, impacting productivity and overall performance. This project delves into HR analytics to analyze and derive insights from a dataset comprising raw employee information, including division, job title, age, length of service, business unit etc. Leveraging Microsoft Excel, the data underwent meticulous cleaning and various pivot tables and visualizations were created to illuminate patterns and trends.

The heart of this project is a dynamic dashboard that provides a comprehensive overview of absenteeism. The dashboard includes key metrics such as total absent hours by gender, department-wise average absent hours, division-wise average length of service, average absent hours by age group etc. The dynamic nature of the dashboard allows for real-time updates as the dataset evolves, ensuring the relevance and accuracy of the insights.

Through this analysis, the project aims to unearth correlations between employee demographics, job characteristics and absenteeism, offering actionable insights for HR professionals and organizational decision-makers. The findings are presented in a visually engaging format, facilitating a clear understanding of the absenteeism landscape within the organization.

This project not only showcases the analytical capabilities of HR analytics but also underscores the practical utility of dynamic dashboards in synthesizing complex information into actionable intelligence. The insights gleaned from this analysis have the potential to inform targeted strategies for mitigating absenteeism, fostering a healthier and more productive work environment.

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1. Introduction

Employee absenteeism, a pervasive challenge faced by organizations, has far-reaching implications for workforce productivity and organizational performance. The ability to understand, analyze and proactively address absenteeism is crucial for fostering a healthy and engaged workforce. In the pursuit of this objective, the current project leverages HR analytics to delve into the patterns and dynamics of absenteeism within the organizational context.

The foundation of this project lies in a comprehensive dataset containing raw employee information encompassing crucial variables such as division, job title, age, length of service, business unit etc. Undertaking a meticulous data cleaning process, the raw data is transformed into a structured format ready for in-depth analysis. The analytical journey unfolds in Microsoft Excel, where the dataset is subjected to the rigors of pivot table manipulation and the creation of various data visualizations.

The culmination of this analysis is a dynamic dashboard that serves as a visual compass, guiding stakeholders through the labyrinth of absenteeism insights. Total absent hours by gender, department-wise average absent hours, division-wise average length of service and average absent hours by age group are among the key metrics showcased in the dashboard. Its dynamic nature ensures that the insights are not static but evolve in real-time with changes in the underlying dataset.

This project seeks not only to unravel the absenteeism landscape within the organization but also to draw meaningful connections between employee demographics, job characteristics and absenteeism trends. The insights gleaned from this exploration hold the promise of informing strategic interventions and policies, empowering HR professionals and organizational leaders to address absenteeism proactively.

Through the lens of HR analytics and the lens of a dynamic dashboard, this project aims to offer a practical demonstration of how data-driven insights can be harnessed to understand and tackle absenteeism challenges.

1.1 Background Information on Absenteeism in the Context of HR Analytics

Employee absenteeism, the habitual pattern of an employee being absent from work, is a critical phenomenon that organizations grapple with on a global scale. Understanding and managing absenteeism is paramount for maintaining a productive and engaged workforce. In the context of Human Resources (HR) analytics, absenteeism becomes a focal point for data-driven decision-making, allowing organizations to move beyond mere identification of absenteeism rates and delve into the underlying factors contributing to employee non-attendance.

Historically, absenteeism has been approached as a human resources challenge requiring attention to policies, workplace culture and employee well-being. However, the advent of HR

analytics has revolutionized the way organizations perceive and address this issue. By leveraging advanced analytical techniques, HR professionals can now extract valuable insights from vast datasets containing employee information.

HR analytics provides a unique opportunity to move beyond surface-level observations and understand the nuanced correlations between absenteeism and various organizational variables. Factors such as department, job title, age, length of service, and business unit can be analyzed to uncover patterns and trends that may influence absenteeism rates. This granular understanding is instrumental in developing targeted strategies to reduce absenteeism, improve workplace satisfaction and enhance overall organizational performance.

The integration of HR analytics in addressing absenteeism aligns with the broader shift toward evidence-based decision-making within human resources. It enables HR professionals to go beyond traditional approaches and adopt a proactive stance by predicting and preventing absenteeism rather than merely reacting to it. By embracing data-driven methodologies, organizations can tailor interventions and policies to the specific needs of their workforce, fostering a culture that mitigates absenteeism and supports employee well-being.

2. Absenteeism Analysis Process

Absenteeism remains a persistent challenge in the contemporary workplace, impacting productivity, team dynamics and organizational performance. This section delves into the detailed analysis of absenteeism using HR analytics, focusing on the dataset containing crucial employee information.

2.1 Data Cleaning and Preparation

The foundation of our analysis lies in the meticulous cleaning and preparation of the raw employee data. In this phase, redundant entries, missing values and outliers were addressed to ensure the dataset's integrity. Standardizing and structuring the data sets the stage for meaningful insights.

2.2 Demographic Insights

The analysis begins with a deep dive into demographic factors such as gender, age and length of service. By segmenting absenteeism data based on these variables, we aim to uncover any distinctive patterns or trends. For instance, understanding whether certain age groups exhibit higher absenteeism rates can inform targeted strategies for specific demographics.

2.3 Departmental and Divisional Trends

Departments and divisions often differ in their work nature, stressors and organizational culture. Through HR analytics, we explore how absenteeism varies across different departments and divisions. Insights derived from this analysis can assist in identifying areas that may require specific interventions to mitigate absenteeism.

2.4 Job Title Analysis

Job roles play a significant role in employee engagement and stress levels. This section examines absenteeism patterns based on job titles, aiming to discern whether certain roles are more prone to absenteeism. Such insights are valuable for tailoring policies and support mechanisms to address the unique challenges faced by different job categories.

2.5 Dynamic Dashboard

The culmination of our analysis is the creation of a dynamic dashboard in Microsoft Excel. This user-friendly interface provides real-time visualizations of critical absenteeism metrics. Users can interact with the dashboard to explore total absent hours by gender, department-wise average absent hours, division-wise average length of service, average absent

hours by age group etc. The dynamic nature ensures adaptability to changes in the dataset over time.

2.6 Correlation and Causation

HR analytics allows us to move beyond descriptive statistics and explore correlations between absenteeism and various factors. Are longer tenures correlated with lower absenteeism? Does gender play a significant role? By understanding these relationships, organizations can identify potential causal factors and implement targeted interventions.

3. Data Analysis

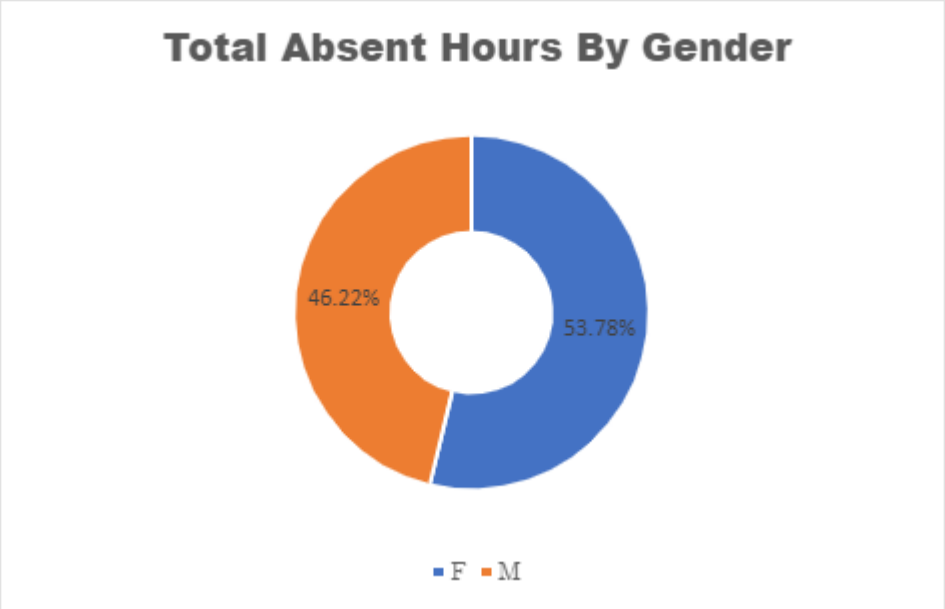
In this section, we embark on a journey through the rich tapestry of employee absenteeism as illuminated by the lens of HR analytics. Having meticulously cleaned and prepared the raw dataset, we now delve into the heart of our exploration: data analysis. This phase unravels the complex interplay of demographic factors, departmental dynamics and job-related intricacies, bringing forth patterns and insights crucial for effective absenteeism management.

As we navigate through the visual landscape of graphs, charts and dynamic dashboards, the intention is to not only present raw numbers but to distill meaningful narratives. These visualizations serve as windows into the world of employee behavior, shedding light on trends that may elude traditional observation.

In the pages that follow, we will unravel the demographic nuances shaping absenteeism, scrutinize the unique fingerprints left by various departments and decipher the role that job titles play in the absenteeism narrative. Our dynamic dashboard, a real-time compass in this exploration, guides us through the labyrinth of insights, with each graph and key finding adding depth to our understanding.

The following pages encapsulate not just a data analysis but a journey toward actionable intelligence.

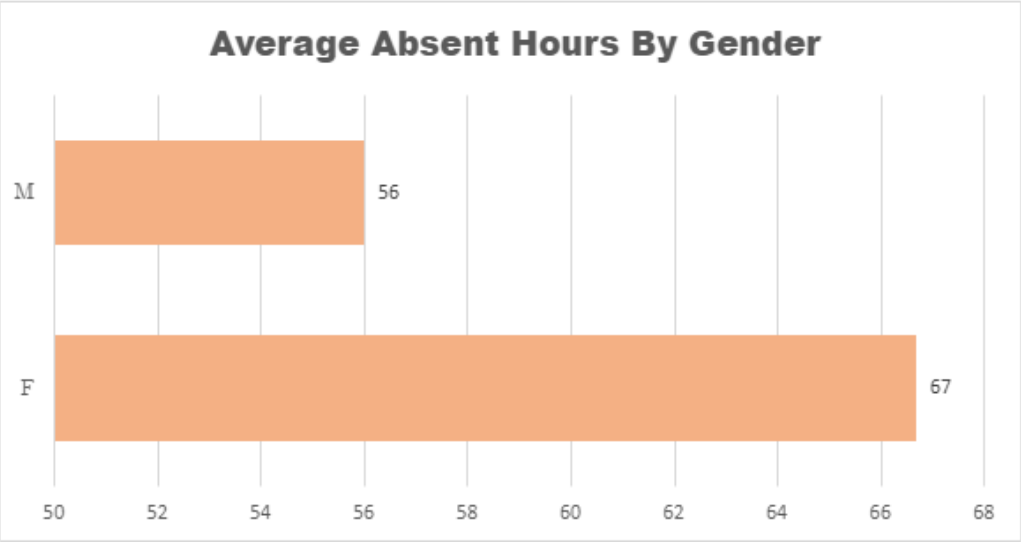
3.1 Total Absent Hours by Gender



Our exploration of absenteeism begins with a focused examination of gender distribution. The dataset reveals a nuanced picture, with females contributing 53.78% and males contributing 46.22% to the total absent hours. This distribution sheds light on the varying patterns of absenteeism between genders within our organization.

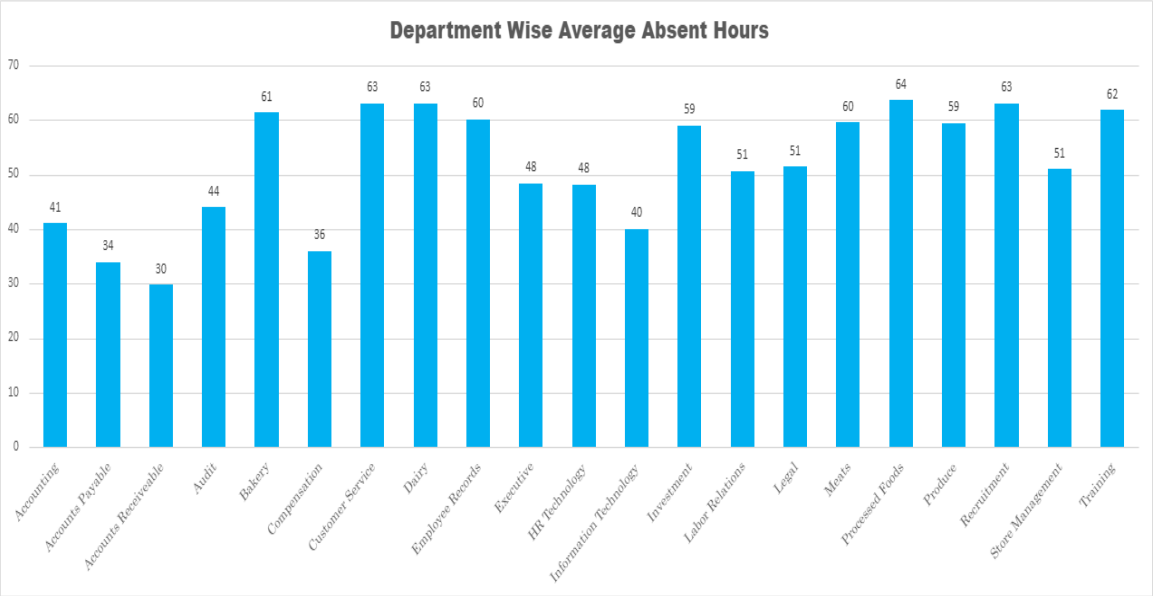
The higher contribution of absent hours by females suggests potential variations in the reasons behind absenteeism among different genders.

3.2 Average Absent Hours by Gender



Digging deeper into the gender dynamics of absenteeism, the data unveils distinctive average absent hours for males and females. On average, males contribute 56 hours (about 2 and a half days) per year, while females register a slightly higher average of 67 hours (about 3 days) annually.

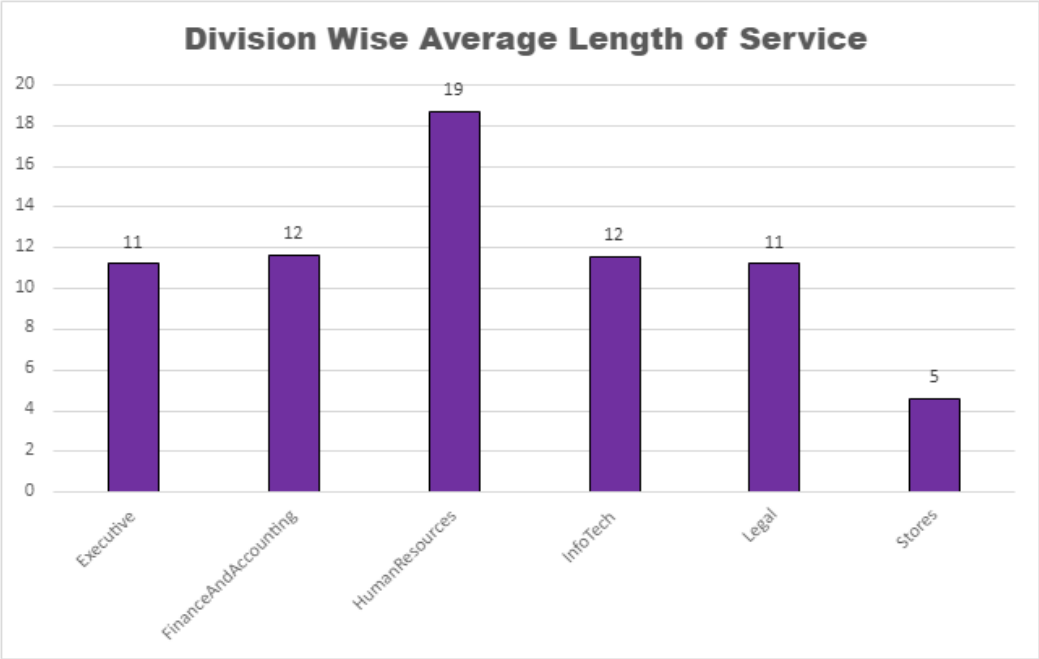
3.3 Department wise average absent hours



Our journey through absenteeism intricacies extends to departmental dynamics, where varying patterns emerge across different organizational units. Examining the average absent hours provides a snapshot of how different departments contribute to the overall absenteeism landscape.

- Highest Averages: Notably, the departments of Processed Food, Dairy, and Customer Service exhibit the highest average absent hours at 64, 63 and 63 hours respectively.
- Lowest Averages: In contrast, the departments of Accounts Receivable, Accounts Payable, and Compensation register the lowest average absent hours, standing at 30, 34 and 36 hours respectively.

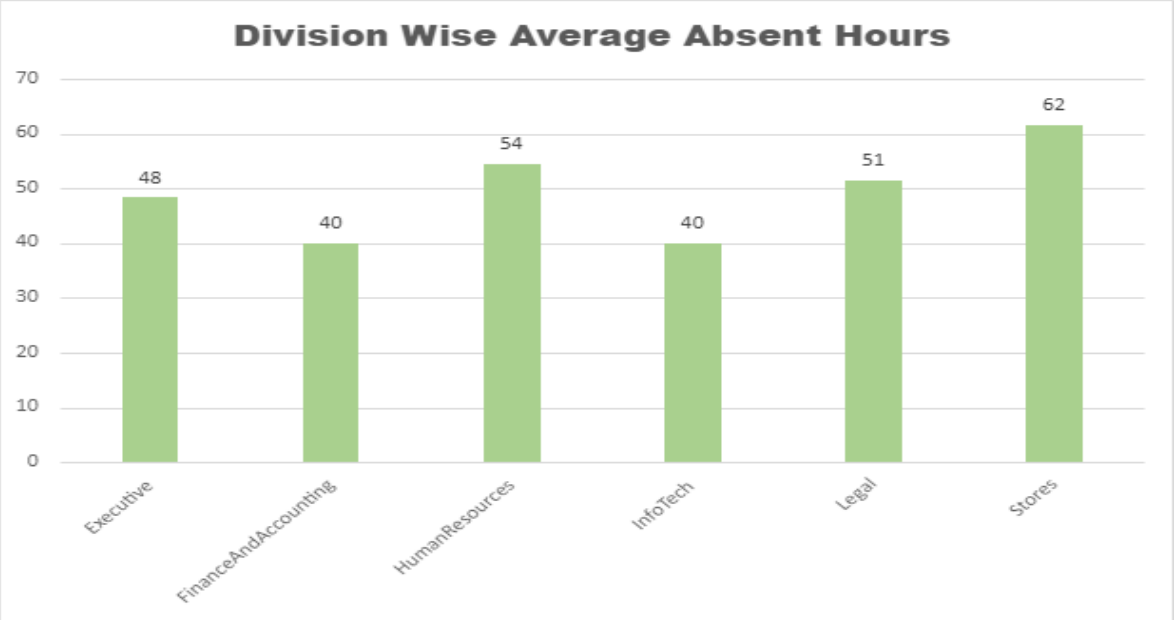
3.4 Division wise average length of service



Diving into the fabric of organizational divisions, our analysis extends to understanding the average length of service across different units. This insight not only sheds light on the commitment levels within each division but also offers valuable context for addressing absenteeism.

- Highest Average Length of Service: The Human Resources division boasts the highest average length of service, standing at an impressive 19 years. This signifies a notable level of dedication and longevity within the HR department.
- Lowest Average Length of Service: On the other end of the spectrum, the Stores division reports the lowest average length of service at 5 years. This discrepancy suggests potential turnover challenges that may influence absenteeism dynamics.

3.5 Division wise average absent hours

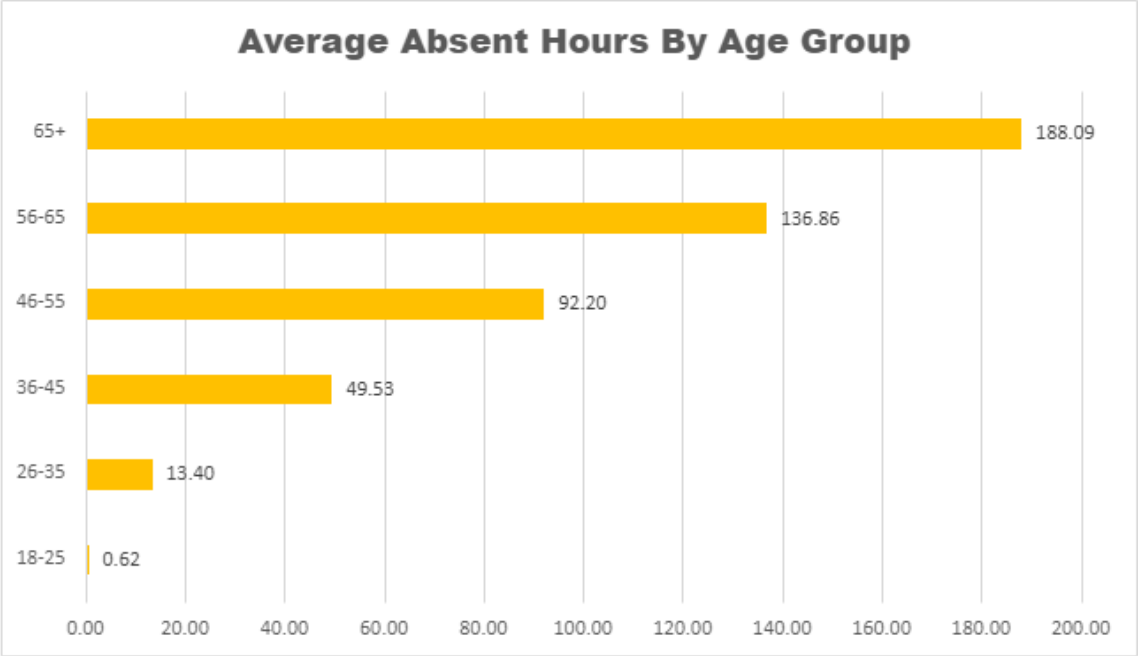


Our exploration into organizational divisions deepens as we examine the average absent hours, unveiling distinctive patterns within each division. Understanding absenteeism at this level provides crucial insights for tailoring strategies to address division-specific challenges.

Highest Average Absent Hours: The Stores division stands out with the highest average absent hours at 62, closely followed by Human Resources at 54. These divisions may require targeted interventions to manage absenteeism effectively.

Lowest Average Absent Hours: In contrast, the Finance and Infotech divisions report the lowest average absent hours, both standing at 40. Identifying and leveraging best practices from these divisions may inform strategies for other units.

3.6 Average absent hours by age group



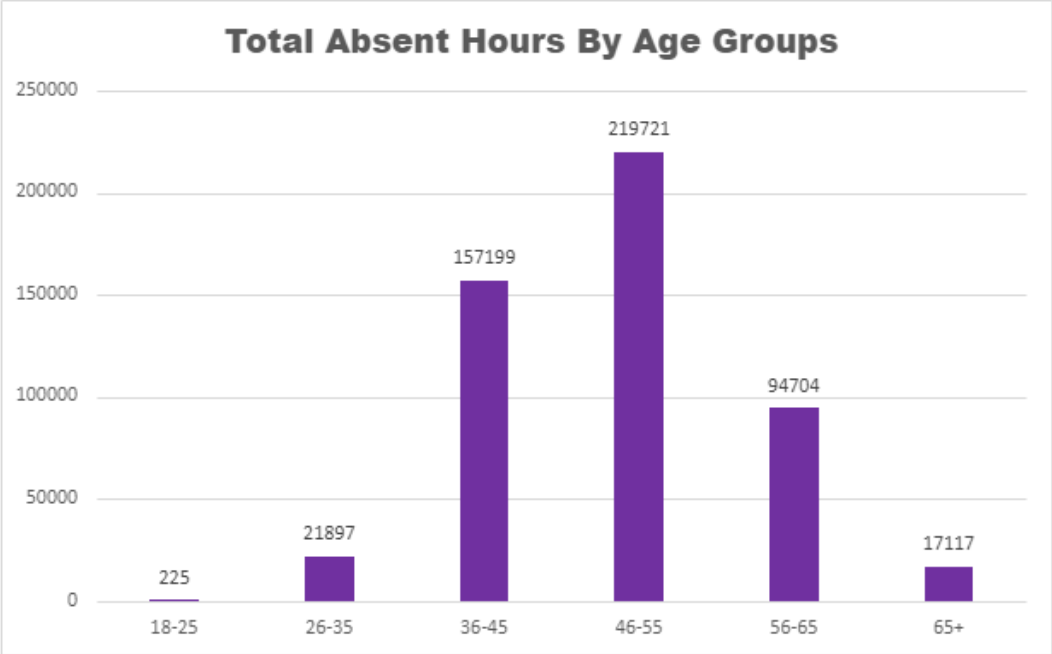
Navigating the intricate landscape of absenteeism, our analysis extends to age group dynamics, unraveling how different age cohorts contribute to the overall absenteeism patterns within the organization.

- Lowest Average Absent Hours (18-25): The youngest age group, 18-25, exhibits the lowest average absent hours at 0.62. This cohort demonstrates a notably low level of absenteeism, suggesting high workforce engagement or perhaps fewer health-related absences.
- Gradual Increase (26-35 to 46-55): Absenteeism steadily increases across subsequent age groups, from 13.40 in the 26-35 age group to 92.20 in the 46-55 age group.

This upward trend may be attributed to a variety of factors such as family obligations, health concerns, or other life-stage considerations.

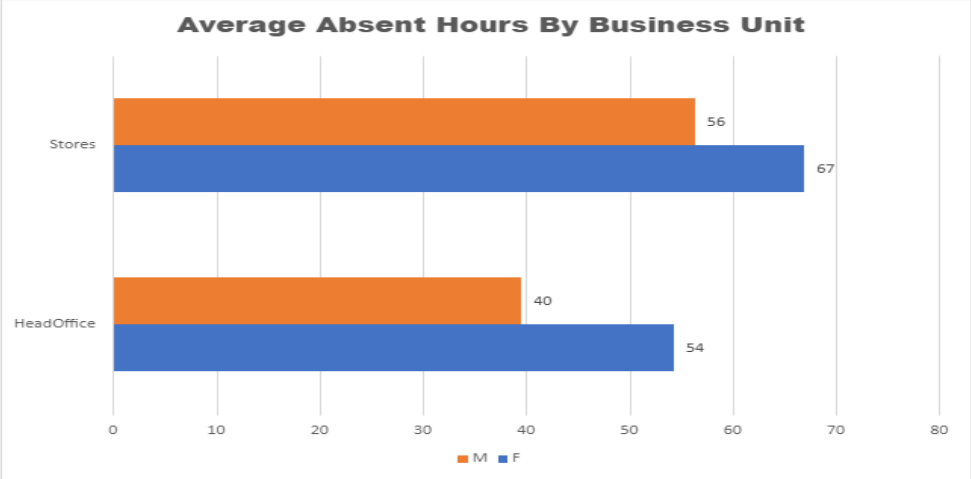
- Peak in Absenteeism (56-65 and 65+): The 56-65 and 65+ age groups show the highest average absent hours at 136.86 and 188.09, respectively. This may indicate potential health-related absenteeism or the impact of retirement transition on workforce dynamics.

3.7 Total absent hours by age group



- Lowest Total Absent Hours (18-25 and 65+): The age groups 18-25 and 65+ collectively exhibit the lowest total absent hours. These cohorts contribute significantly less to the overall absenteeism pool, suggesting a potential trend of lower workforce absenteeism in these age extremes.
- Highest Total Absent Hours (45-55): In contrast, the age group 45-55 emerges with the highest total absent hours. This cohort bears a larger share of the absenteeism burden, indicating potential factors such as family responsibilities, health concerns, or work-related stress.

3.8 Average absent hours by business unit



Our examination of absenteeism now turns to the lens of business units, providing insights into how different units contribute to overall absenteeism, with a specific focus on gender dynamics.

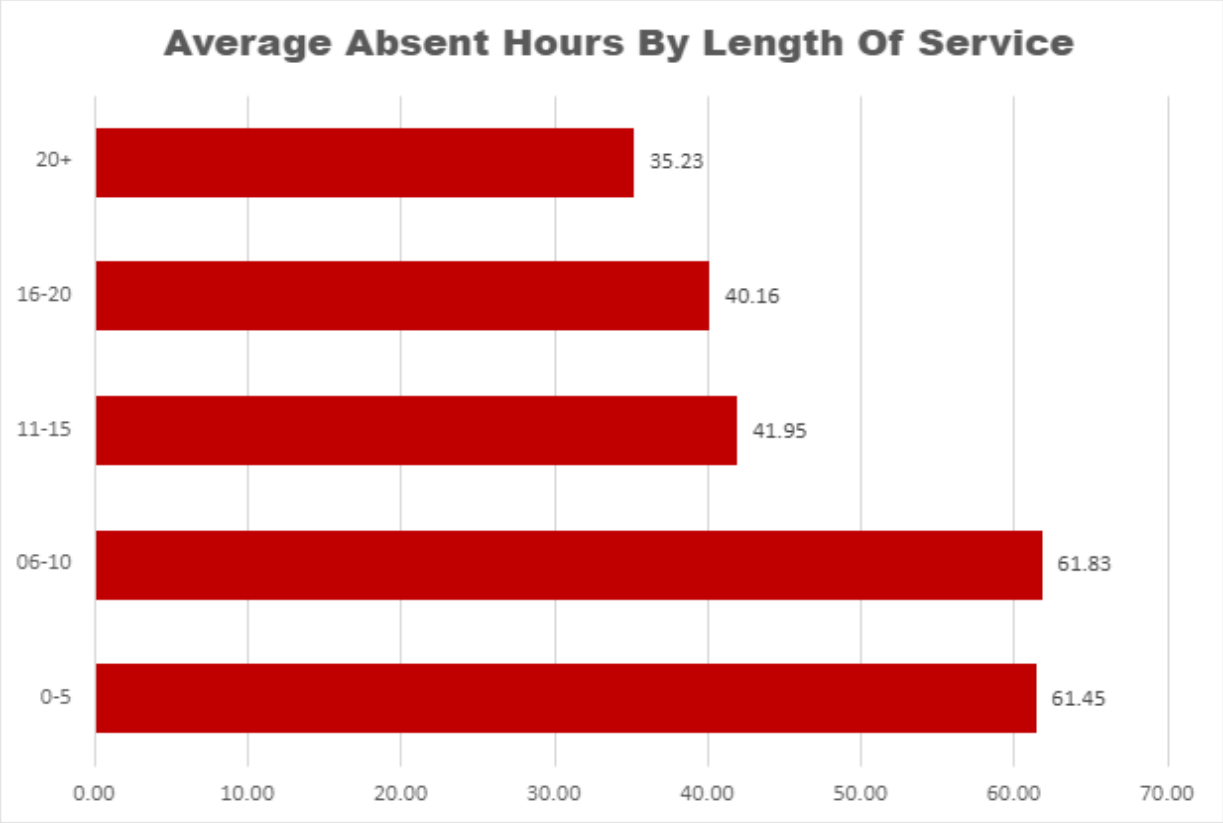
1. Stores Business Unit: -

- Male Employees: The male workforce in the Stores business unit registers an average of 56 absent hours.
- Female Employees: On the other hand, female employees in the Stores business unit exhibit a slightly higher average of 67 absent hours.

2. Head Office Business Unit: -

- Male Employees: In the Head Office business unit, male employees report an average of 40 absent hours.
- Female Employees: Female employees in the same unit demonstrate a comparatively higher average of 54 absent hours.

3.9 Average absent hours by length of service

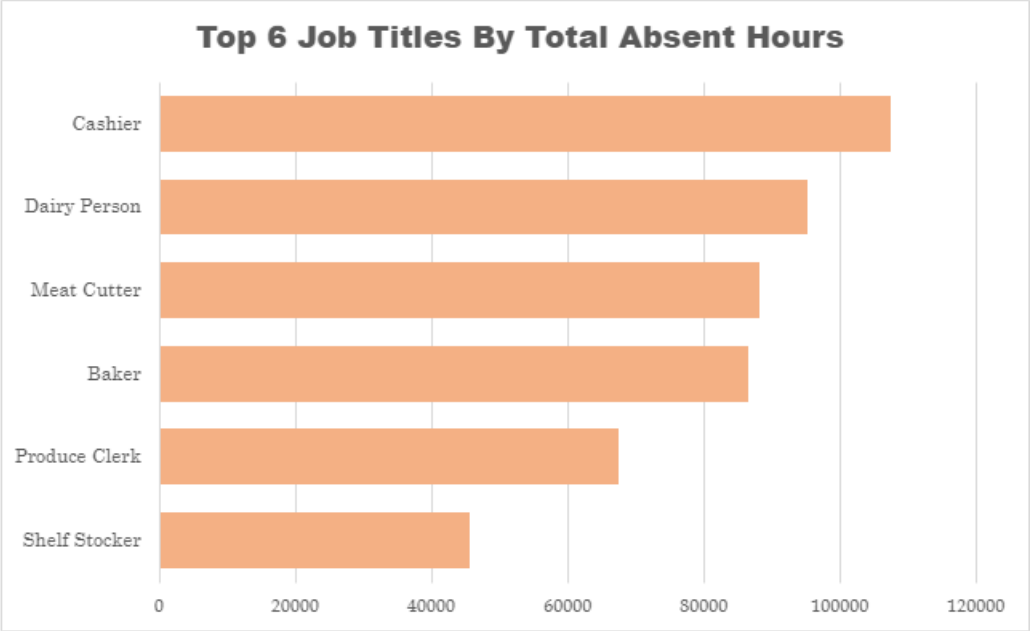


Our exploration of absenteeism now delves into the impact of length of service on average absent hours, offering insights into how employee tenure influences absenteeism patterns.

- Consistent Averages (0-5 and 6-10 years): The initial years of service, encompassing both the 0-5- and 6-10-year ranges, show consistent average absent hours at 61. This suggests a stable absenteeism trend during the early stages of employment.
- Decrease with Longer Service (11-15, 16-20, 20+ years): As length of service extends, a gradual decrease in average absent hours is observed. The 11–15-year range

reports an average of 41 hours, the 16–20-year range shows 40 hours, and employees with 20 or more years of service exhibit the lowest average at 35 hours. This decline may be indicative of increased employee commitment or workplace satisfaction with longer tenures.

3.10 Top 6 job titles by total absent hours

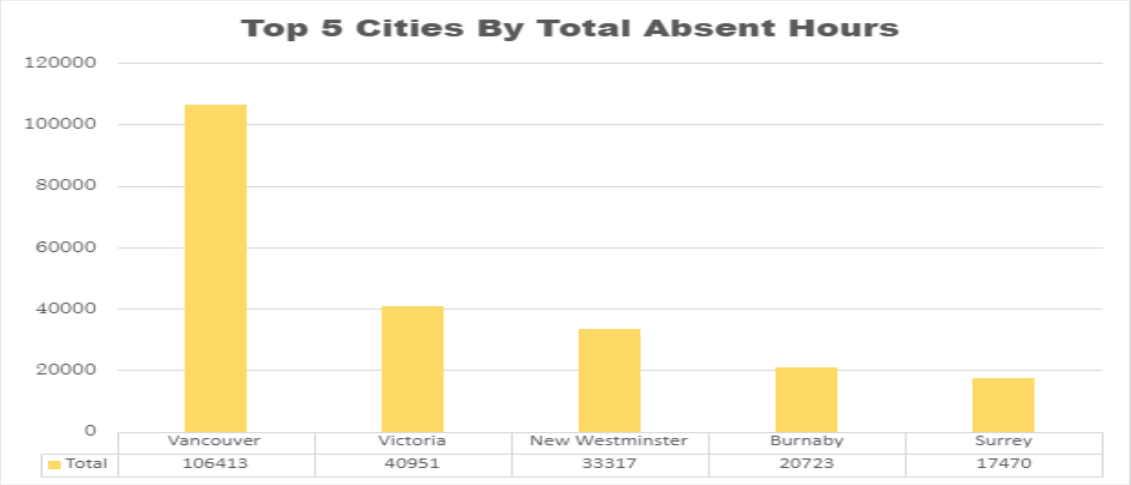


Our focus now shifts to job titles, as we unveil the top contributors to total absent hours within the organization. This analysis sheds light on the specific roles that significantly impact absenteeism dynamics.

- Cashier: Topping the list is the role of Cashier, emerging as the job title with the highest total absent hours. Understanding the absenteeism patterns associated with this role becomes crucial for targeted interventions.
- Dairy Person: Following closely is the Dairy Person role, demonstrating a substantial impact on total absenteeism. Exploring the unique challenges faced by individuals in this position can inform strategies to manage and mitigate absenteeism.

- Meat Cutter: The role of Meat Cutter holds a prominent position in total absent hours, emphasizing the need for tailored absenteeism management strategies specific to this job title.
- Baker: Bakers contribute significantly to total absenteeism, warranting an in-depth exploration of factors influencing absenteeism within this occupational category.
- Produce Clerk: The role of Produce Clerk also emerges as a key contributor to total absent hours. Understanding the absenteeism patterns in this position is essential for targeted workforce management.
- Shelf Stocker: Completing the top six is the Shelf Stocker position, demonstrating notable absenteeism impact. Examining the unique challenges faced by Shelf Stockers informs strategies to address absenteeism within this role.

3.11 Top 5 cities by total absent hours



Our exploration into the impact of location on absenteeism now turns to cities, revealing the top contributors to total absent hours. This geographical breakdown offers insights into how regional dynamics may influence workforce absenteeism patterns.

- Vancouver: Leading the list is Vancouver, emerging as the city with the highest total absent hours. Understanding the unique factors contributing to absenteeism in Vancouver is essential for targeted strategies.
- Victoria: Following closely is Victoria, demonstrating a substantial impact on total absenteeism. Exploring the specific challenges faced by employees in this city informs tailored absenteeism management approaches.

- New Westminster: The city of New Westminster holds a prominent position in total absent hours, emphasizing the need for a nuanced examination of absenteeism dynamics within this geographic area.
- Burnaby: Burnaby emerges as a significant contributor to total absenteeism. Identifying the factors influencing absenteeism in Burnaby aids in developing effective strategies for this specific location.
- Surrey: Completing the top five is Surrey, demonstrating notable absenteeism impact. Examining the unique challenges faced by employees in Surrey informs targeted interventions to address absenteeism in this city.

4. Conclusion

In the labyrinth of HR analytics, our journey into the realm of absenteeism has uncovered a tapestry of insights, intricacies, and correlations that weave together to form a nuanced understanding of workforce dynamics. As we draw the curtains on this project, several key takeaways emerge, each contributing to a holistic view of absenteeism within our organization.

4.1 Demographic Nuances

Demographic factors play a pivotal role in shaping absenteeism patterns. From gender disparities to age-related trends, our analysis has unearthed valuable insights that illuminate the diverse landscape of our workforce.

4.2 Departmental Dynamics

Our examination of different departments revealed not only areas that demand attention but also potential best practices. Tailoring strategies to address specific departmental challenges is imperative for effective absenteeism management.

4.3 Divisional Distinctions

Distinct patterns within organizational divisions underscore the importance of localized strategies. From the highest average length of service in Human Resources to the varied

absent hours in different business units, our analysis provides a roadmap for targeted interventions.

4.4 Age-Related Realities

As we navigated through age groups, a comprehensive picture of absenteeism emerged. From the lowest absenteeism in the youngest and oldest cohorts to the peaks in the middle-age brackets, understanding age-related absenteeism dynamics allows for more informed workforce planning.

4.5 Occupational Impact

Certain job titles emerged as significant contributors to absenteeism. The unique challenges faced by Cashiers, Dairy Persons, Meat Cutters, and others underscore the need for occupation-specific strategies.

4.6 Geographical Influences

Finally, our exploration into cities highlighted regional variations in absenteeism. From Vancouver to Surrey, each city presents a distinct set of challenges that necessitate location-specific approaches for absenteeism management.

As we conclude this project, the intersection of these findings forms a mosaic of knowledge. The dynamic dashboard and visual representations served not only as tools for exploration but as beacons guiding us through the complex landscape of absenteeism analytics.

Moving forward, these insights provide a foundation for strategic decision-making. By acknowledging and addressing the specific nuances uncovered in this analysis, we can proactively shape policies and interventions that resonate with the unique characteristics of our workforce.

In the ever-evolving landscape of HR analytics, this project stands as a testament to the power of data-driven decision-making. Absenteeism, once a challenge veiled in complexity, now unfolds as a puzzle with discernible pieces, each contributing to a clearer picture of workforce behavior. As we take the lessons learned and recommendations derived, we embark on a journey towards a more informed and responsive approach to absenteeism management within our organization.

HR ANALYTICS ABSENTEEISM DASHBOARD