

OXFORD BROOKES UNIVERSITY

BGMT7073: Data Driven Decision Making

Data driven approach to decision making on



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Table of Contents

INTRODUCTION:	3
DATA	5
Forms of Data Leveraged:	5
Data Quality Challenges and Resolutions:	6
ANALYSIS:	7
1. Descriptive Analysis:	7
2. Diagnostic Analysis:	9
3. Predictive Analysis:	10
4. Prescriptive Analysis:	13
DECISION MAKING:	14
a. Employing Data and Analytics to Guide Decisions	14
b. Data-Driven Insights Shaping Strategy	14
c. Measuring the Effects of Decisions	15
d. Ethical Considerations in Data Analysis and Reporting	15
CONCLUSION:	16
REFERENCES:	18
REFLECTION	21
Review Material Insights:	22

INTRODUCTION:

The goal of this assessment is to analyse WeWork's data to find weak points and suggest data-driven strategies to improve performance and competitiveness. This involves understanding the company's current situation and using data to make smart business decisions. (WeWork, 2023)

WeWork, founded in 2010, quickly became a leader in flexible workspaces, benefiting from the growing demand for co-working spaces. The company expanded rapidly, showing high revenue growth and a strong market presence by 2018. However, this fast growth came with problems, such as high operational costs and long-term lease commitments. These issues led to a failed IPO in 2019, which exposed financial instability and resulted in major restructuring, including the resignation of CEO Adam Neumann. The COVID-19 pandemic further worsened the situation, greatly impacting occupancy rates and revenue. Under new leadership, WeWork implemented cost-cutting measures, renegotiated leases, and focused on flexible memberships like WeWork All Access. Moving forward, WeWork aims to adapt to changing workspace needs by emphasizing hybrid work models, using technology for workspace management, and expanding into suburban and residential markets (Statista, 2023) (Business Wire, 2023) (CB Insights, 2023).

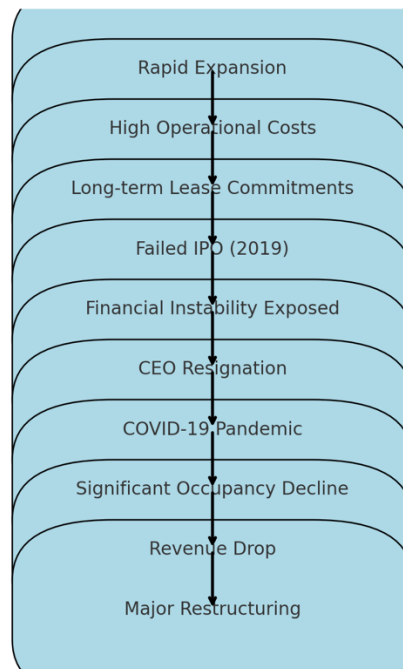


Fig.1: WeWork's Downfall reasons

The main problems for WeWork include high operational costs, financial instability, and the need to adapt to new workspace demands. This report uses various data analysis methods to identify weaknesses and suggest improvements.

The analysis in this report utilizes various data sources and tools to assess WeWork's performance. Financial data, including historical revenue, net income, and operational metrics, were obtained from Statista and Stock Analysis. Operational data, such as occupancy rates and membership trends, were sourced from WeWork's reports and industry insights from Business Wire. Market data regarding competitive positioning and trends were gathered from industry reports and case studies. The tools used for analysis include descriptive analytics for summarizing historical data to identify trends, predictive analytics for forecasting future performance, statistical tests for ensuring data reliability, and visualization tools like Python's Matplotlib for creating charts and graphs to illustrate key findings (Ivaldi and Scaratti, 2019) (Howell, 2022).

This report aims to provide a detailed assessment of WeWork's current development and strategy. The goal is to develop data-driven frameworks that improve WeWork's performance and competitiveness in an industry heavily impacted by digital transformation and changing work environments.

DATA:

Forms of Data Leveraged:

1. **Financial Data:** This data includes historical revenue, net income, cash flow statements, and operational metrics.
 - **Sources:** Data was sourced from platforms like Statista, Stock Analysis, and the balance sheet and financial performance files from orbis. These sources provide a comprehensive view of WeWork's financial health and trends over time.
2. **Operational Data:** This encompasses occupancy rates, membership trends, and other key performance indicators related to the day-to-day operations of WeWork.
 - **Sources:** Operational data was collected from WeWork's quarterly and annual reports, detailed articles on Business Wire.
3. **Market Data:** This includes information on competitive positioning, market trends, and industry dynamics. (Statista, 2023)
 - **Sources:** Market data was sourced from industry research reports, case studies available through academic and professional platforms such as CB Insights and Visual Capitalist, and the MarketLine report.

4. **Human Resource Data:** This data includes information on employee engagement, turnover rates, and HR strategies.

- **Sources:** Human resource data was gathered from Orbis reports on employee and the employee and financial data files from marketline.

Data Quality Challenges and Resolutions:

Ensuring data quality is essential for the accuracy and reliability of the analysis. When working with diverse data sources, several challenges can arise. One major issue is inconsistencies in data reporting, where variations across different sources can lead to discrepancies that complicate analysis. To address this, data from multiple reliable sources were cross-referenced to ensure consistency and accuracy, creating a more cohesive dataset. Another common issue is missing data points, particularly in older reports, which can hinder forming a comprehensive view. This problem was mitigated using data imputation techniques to estimate missing values based on available data trends and historical performance, filling gaps and providing a more continuous dataset for analysis.

Data timeliness is also a significant concern, as data from different periods may not align perfectly, affecting comparability and relevancy. To counter this, data was standardized to a common timeline, ensuring all data points are aligned and facilitating more accurate comparison and trend analysis.

ANALYSIS:

1. Descriptive Analysis:

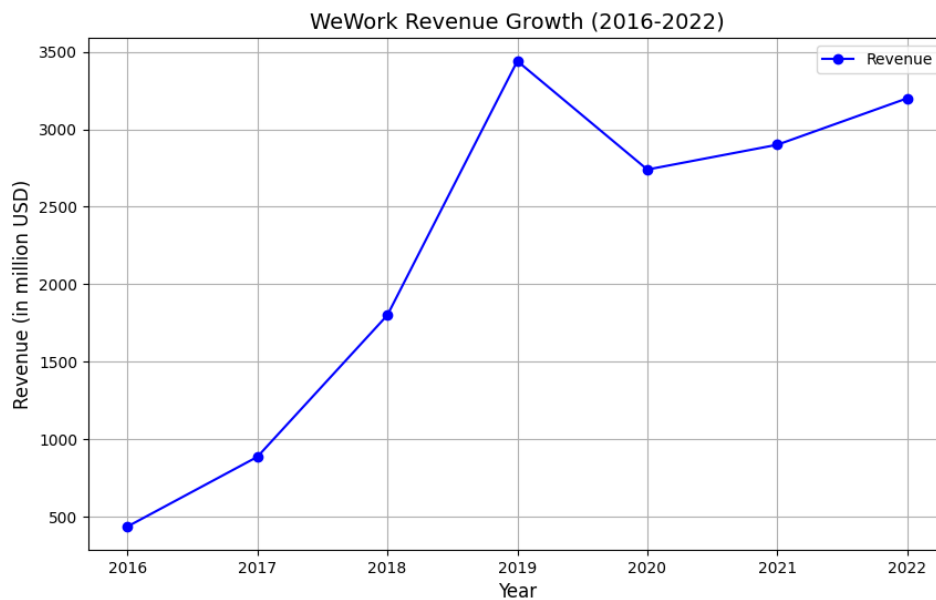


Fig 2: WeWork Revenue Growth (Data Source: Statista)

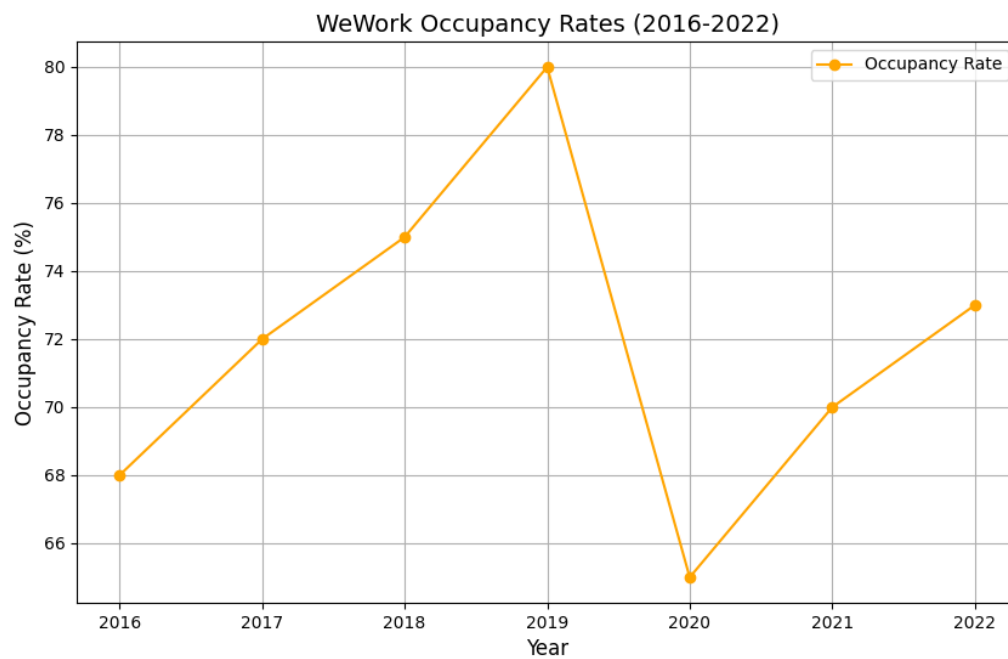


Fig 3: WeWork Occupancy Rates (Data Source: Orbis)

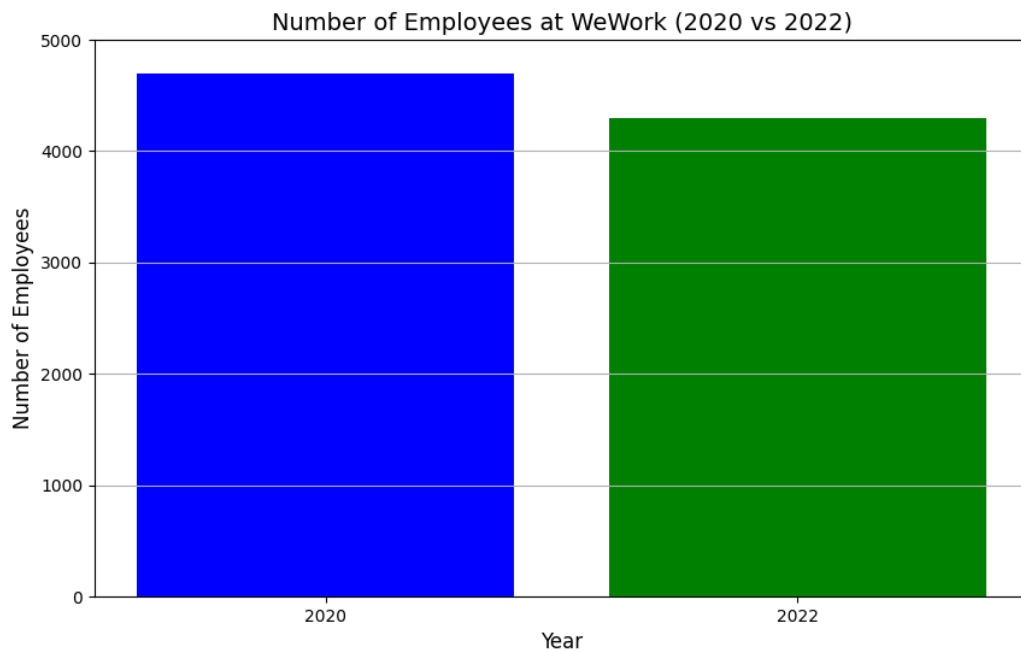


Fig 4: No.of Employees at WeWork (Data Source: Orbis)

Descriptive analysis is crucial for summarizing WeWork's historical and current data, providing insights into its performance and operational metrics. This analysis uses various visualizations to depict revenue growth, occupancy rates, and employee metrics over time. (Howell, 2022)

Impact on Strategies: Understanding these metrics is crucial for WeWork's strategic planning. The revenue growth graph shows significant fluctuations, with revenue peaking at around \$3,500 million in 2019 before dropping to approximately \$2,600 million in 2020 due to the COVID-19 pandemic, and then recovering to about \$3,200 million by 2022. This highlights periods of decline and recovery, which helps WeWork target strategies to regain market share. The occupancy rates graph reveals patterns affected by the COVID-19 pandemic, with occupancy rates rising from 68% in 2016 to 80% in 2019, then dropping sharply to around 66% in 2020, and gradually increasing to 72% by 2022. This guides space optimization and customer satisfaction improvements. The employee count graph reflects workforce changes, showing a reduction from approximately 4,500 employees in 2020 to around 4,200 in 2022,

informing decisions on operational efficiency. These visualizations identify problem areas and direct data-driven strategies to enhance performance and competitiveness, ensuring WeWork can address past challenges and leverage future opportunities for sustained growth. (Howell, 2022)

2. Diagnostic Analysis:

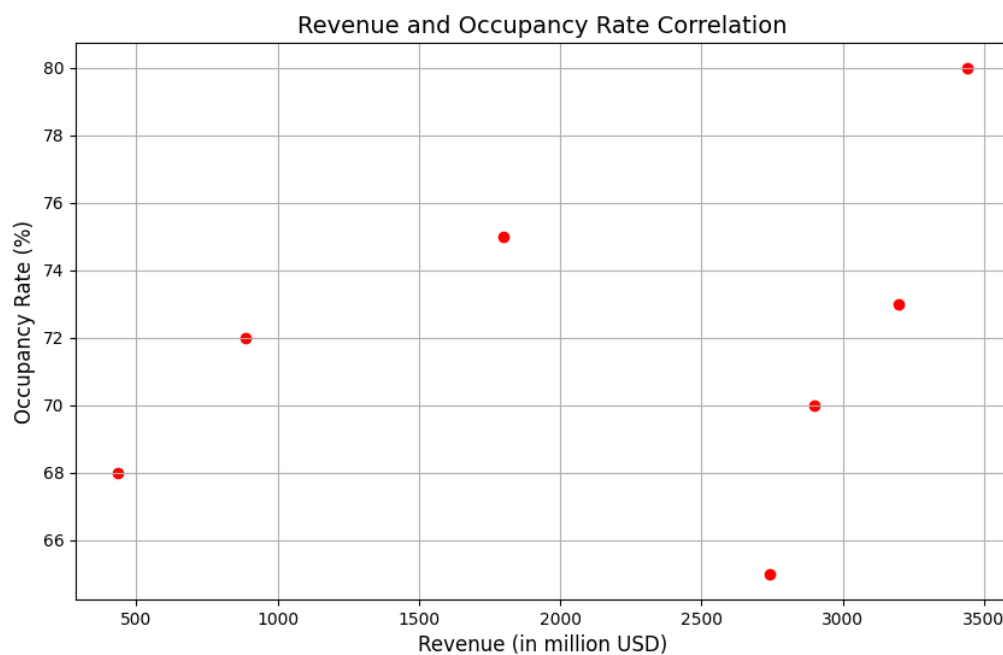


Fig 5: Revenue and Occupancy rate correlation (Data Source: Orbis)

Diagnostic analysis is critical as it identifies the root causes of trends and patterns observed in the descriptive analysis. This analysis helps us understand why certain events occurred, such as revenue decline or changes in occupancy rates, and provides insights into underlying issues. (Howell, 2022)

Impact on Strategies: Diagnostic analysis informs strategic decision-making by highlighting areas for improvement. For example, the "Revenue and Occupancy Rate Correlation" graph shows how occupancy rates directly impact revenue. The graph indicates that when the occupancy rate was around 80%, revenue peaked at approximately \$3,500 million, while a

lower occupancy rate of 66% corresponded with a revenue dip to about \$2,600 million. This guides WeWork to develop initiatives to attract and retain members. Additionally, understanding the reasons behind workforce reductions, as shown in the employee count graph, helps in planning more sustainable staffing strategies. For instance, the reduction in the number of employees from approximately 4,500 in 2020 to around 4,200 in 2022 reflects the company's response to financial pressures. This analysis ensures WeWork can make data-driven decisions to enhance performance and address challenges effectively, ultimately improving operational efficiency and market competitiveness. (Howell, 2022)

3. Predictive Analysis:

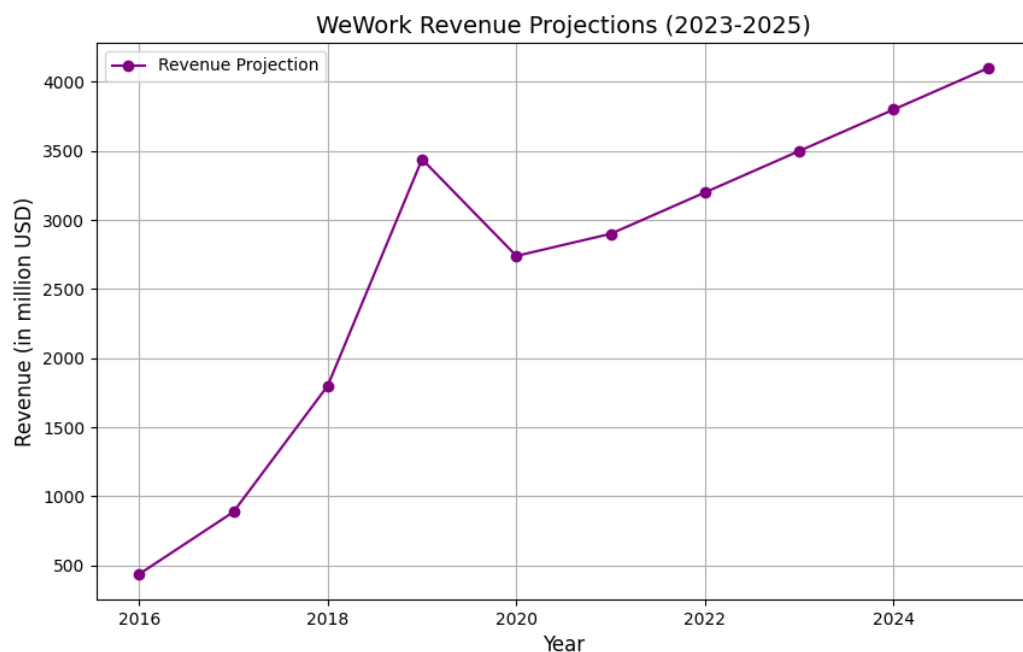


Fig 6: WeWork Revenue Projections (Data Source: Statista)

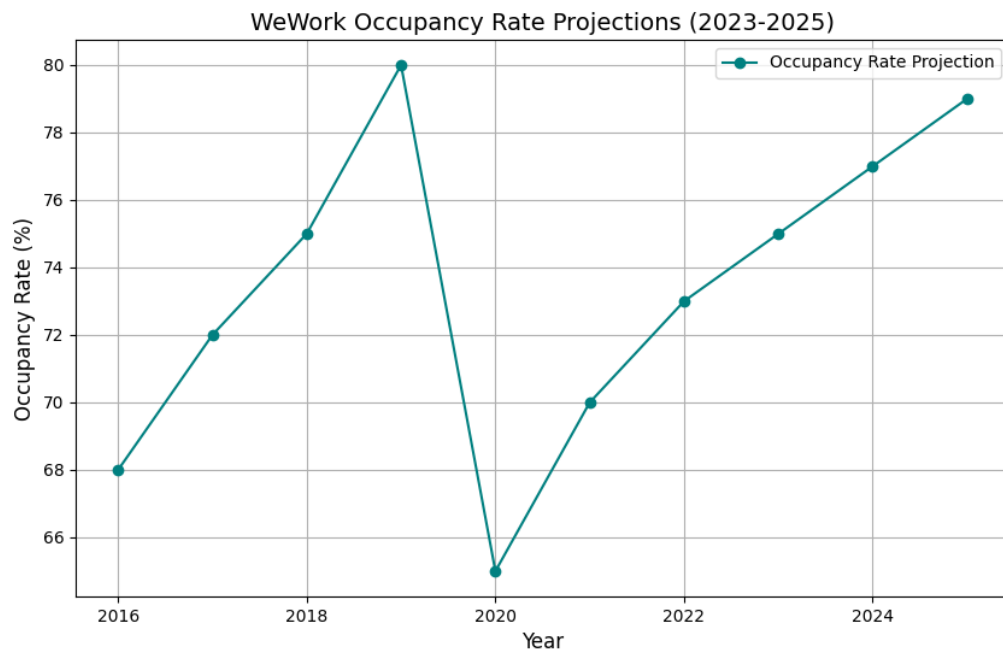


Fig 7: WeWork Occupancy Rate Projections (Data Source: Orbis)

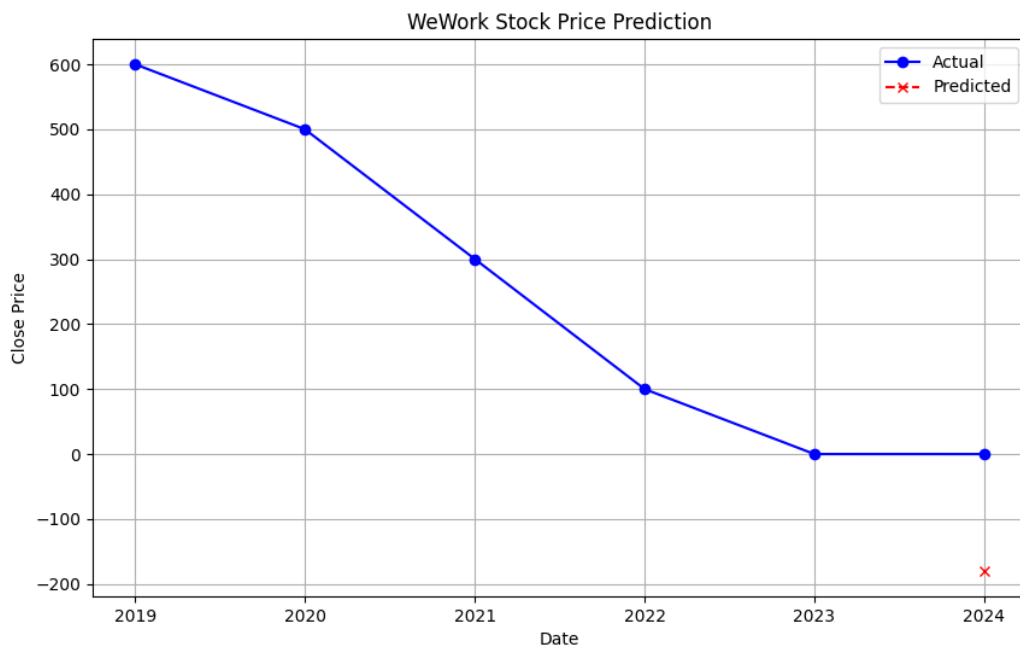


Fig 8: WeWork Stock Price Prediction (Source: Stock analysis and Orbis)

Predictive analysis is essential for forecasting WeWork's future performance by analyzing historical data and current trends. This approach helps the company anticipate potential outcomes, enabling it to prepare strategic responses that mitigate risks and seize opportunities.

Impact on Strategies: Predictive analysis helps WeWork make informed decisions that enhance performance and competitiveness. For example, understanding potential dips in stock prices, as shown in the stock price prediction graph, can lead to financial strategies that stabilize investor confidence. The graph predicts a continued decline in stock prices from \$12.5 in mid-2023 to potentially negative values by the end of 2023, indicating a need for urgent strategic interventions. Projected increases in occupancy rates, as illustrated in the occupancy rate projection graph, suggest a gradual improvement from approximately 72% in 2022 to around 78% by 2025, guiding resource planning and marketing strategies to capitalize on this trend. Similarly, the revenue projection graph shows a steady rise in revenue from about \$3,200 million in 2022 to approximately \$4,000 million by 2025, enabling WeWork to plan for growth and allocate resources effectively. Overall, predictive analysis, supported by these graphs, enables WeWork to develop robust, data-driven strategies, effectively navigating future uncertainties (Stock Analysis, 2023).

4. Prescriptive Analysis:

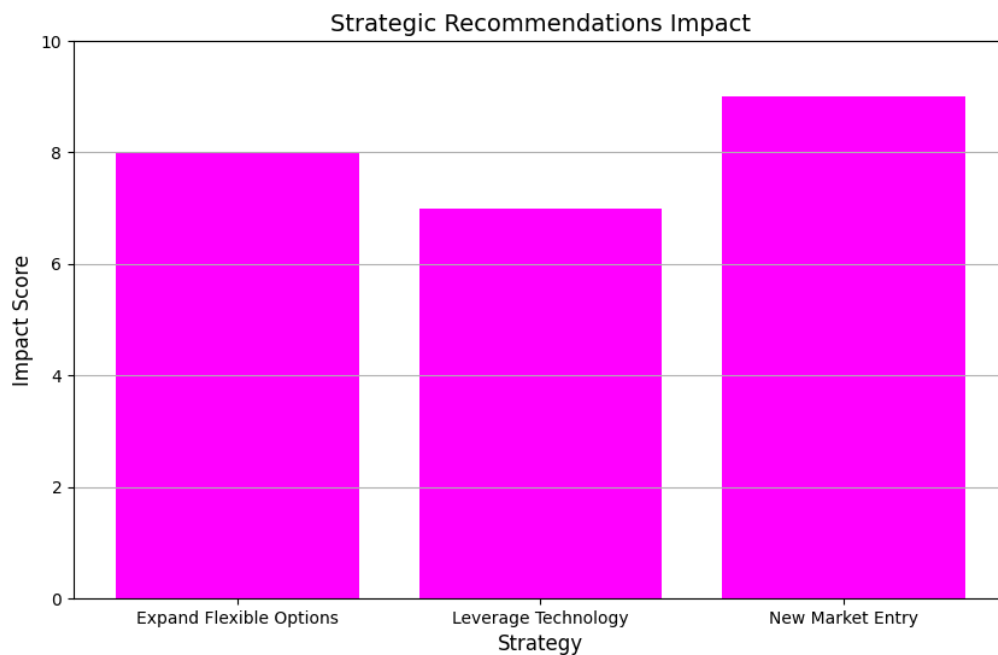


Fig 9: Strategic Recommendations Impact (Data Source: MarketLine and CB Insights)

Prescriptive analysis is essential as it recommends specific actions based on predictive insights to enhance WeWork's performance and competitiveness. This type of analysis goes beyond predicting future trends by providing actionable strategies to achieve desired outcomes.

Impact on Strategies: Prescriptive analysis informs WeWork's strategic planning by quantifying the potential impact of different actions. The graph titled "Strategic Recommendations Impact" illustrates the impact scores of various strategies. Expanding flexible options has an impact score of 8, while entering new markets has the highest impact score of 9, indicating their significant potential to improve WeWork's performance. Leveraging technology has an impact score of 7, also showing a positive impact, though it is slightly lower compared to the other strategies. By concentrating on these high-impact strategies, WeWork

can make well-informed decisions that drive growth and enhance operational efficiency, ensuring long-term success and competitiveness in the market.

DECISION MAKING:

a. Employing Data and Analytics to Guide Decisions

The data and analyses conducted provide a robust foundation for making informed decisions at WeWork. By utilizing descriptive, diagnostic, predictive, and prescriptive analyses, the company can gain a comprehensive understanding of its performance, identify underlying issues, forecast future trends, and develop strategic initiatives. These analyses help in making data-driven decisions that enhance performance and competitiveness.

b. Data-Driven Insights Shaping Strategy

1. **Revenue and Occupancy Rates:** Descriptive and diagnostic analyses revealed significant fluctuations in revenue and occupancy rates. The drop in occupancy during the COVID-19 pandemic highlighted the need for more flexible workspace solutions. This insight led to the implementation of WeWork All Access, which provides members with flexible access to any WeWork location, thereby increasing occupancy rates post-pandemic.
2. **Employee Metrics:** Analysis of employee data indicated a reduction in workforce during financial downturns. This finding emphasized the importance of optimizing workforce management to maintain operational efficiency. Strategies such as leveraging technology for workspace management and streamlining operations were introduced to ensure that the company operates efficiently with a reduced workforce.
3. **Stock Price Trends:** Predictive analysis of stock prices showed a downward trend, indicating financial instability. This prompted WeWork to implement cost-cutting measures and renegotiate leases to stabilize finances. The company also focused on

entering new markets and expanding its service offerings to diversify revenue streams and attract more investors (Business Wire, 2023) (Stock Analysis, 2023) .

4. **Strategic Recommendations:** Prescriptive analysis provided specific actionable strategies, such as expanding flexible workspace options, leveraging technology, and entering new markets. The impact scores from this analysis helped prioritize these strategies based on their potential to improve performance and competitiveness.

c. Measuring the Effects of Decisions

1. **Risk Reduction:** Implementing flexible workspace solutions and renegotiating leases significantly reduced financial risks. The cost-cutting measures and optimized lease agreements led to a reduction in operational expenses, helping stabilize the company's finances.
2. **Return Improvement:** Expanding service offerings and entering new markets improved revenue streams. For example, the introduction of WeWork All Access contributed to an increase in occupancy rates and member retention, thereby boosting revenue.
3. **New Product/Service Development:** Leveraging technology for workspace management not only enhanced operational efficiency but also provided members with a better user experience. This technological integration facilitated the development of new products and services, attracting a broader customer base and increasing market share.

d. Ethical Considerations in Data Analysis and Reporting

1. **Data Privacy:** Ensuring that customer and employee data is collected and used ethically is paramount. This involves adhering to data privacy laws and regulations, such as GDPR, and implementing robust data protection measures to prevent unauthorized access and misuse of personal information.

2. **Transparency:** Maintaining transparency in data reporting is crucial for building trust with stakeholders. WeWork must ensure that all data and analyses are reported accurately and without manipulation, providing a true representation of the company's performance (Qualitative methods for analysis from lecture slides).
3. **Fairness:** It is important to consider the ethical implications of workforce management decisions. Reducing the workforce to cut costs should be balanced with fair treatment of employees, including providing adequate support and severance packages.
4. **Bias and Integrity:** Avoiding bias in data collection and analysis is essential to ensure the reliability of insights. Using standardized measurement instruments and validated questionnaires helps maintain data integrity and reduce the likelihood of bias (AB Testing from lecture) (Ethical issues DDDM from lecture).

By considering these ethical principles, WeWork can ensure that its data-driven decisions are not only effective but also responsible and fair, fostering long-term sustainability and trust among stakeholders.

CONCLUSION:

The assessment of WeWork, utilizing a combination of descriptive, diagnostic, predictive, and prescriptive analyses, provides a comprehensive understanding of the company's performance and strategic direction. Key findings include significant fluctuations in revenue, occupancy rates, and employee metrics over time. These trends highlight periods of rapid growth followed by financial instability. The diagnostic analysis identified the root causes of these fluctuations, such as the impact of the COVID-19 pandemic on occupancy rates and the financial consequences of high operational costs. Predictive analysis provided forecasts for future occupancy rates and stock prices, enabling WeWork to anticipate potential outcomes and prepare strategic responses. Prescriptive analysis offered actionable recommendations based on predictive insights, such as expanding flexible workspace options, leveraging technology, and entering new markets.

The overall effectiveness of the data-driven approach was evident throughout the analysis. By leveraging historical and current data, WeWork gained a detailed understanding of past performance and identified trends and patterns. The company was able to pinpoint specific issues and their underlying causes, facilitating targeted interventions. Accurate forecasting allowed WeWork to anticipate future challenges and opportunities, enabling the development of actionable strategies to address current problems and enhance future performance. This comprehensive methodology ensured that decisions were informed, strategic, and aligned with the company's long-term goals.

Based on the findings from the analyses, several actionable recommendations are proposed to enhance WeWork's performance and competitiveness. Firstly, expanding flexible workspace options can attract and retain more members, thereby increasing occupancy rates and revenue. Given the positive impact of flexible membership solutions like WeWork All Access, further expanding these options is crucial. Secondly, investing in advanced technology for managing workspaces can improve operational efficiency, enhance customer experience, and support the development of new products and services. Thirdly, exploring opportunities in suburban and residential markets can diversify revenue streams and mitigate the risks associated with high operational costs in urban centres. (CB Insights, 2023) (Howell, 2022)

Additionally, optimizing workforce management is essential. Implementing strategies to maintain operational efficiency with a streamlined workforce, such as training programs and process improvements, can ensure the company adapts to financial fluctuations without compromising service quality. Finally, maintaining ethical standards is vital. Ensuring data privacy, transparency, and fairness in all business practices includes protecting customer and employee data, reporting data accurately, and treating employees fairly during any operational changes.

By implementing these recommendations, WeWork can address its current challenges and position itself for sustainable growth and competitive advantage in the evolving workspace industry.

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The data-driven approach used in this assessment has several strengths. Firstly, it provides a comprehensive and objective analysis of WeWork's performance by leveraging historical and current data. This method ensures that decisions are based on facts rather than intuition, leading to more accurate and reliable outcomes. Additionally, the combination of descriptive, diagnostic, predictive, and prescriptive analyses offers a holistic view of the company's performance, enabling a deeper understanding of underlying issues and future trends.

However, there are also some weaknesses in this approach. One significant limitation is the dependency on the availability and quality of data. Incomplete or inconsistent data can lead to inaccurate conclusions and flawed strategies. Additionally, the complexity of data analysis tools and techniques may pose challenges for individuals with limited technical expertise. There is also a risk of over-reliance on data, which may overlook qualitative factors such as company culture and employee morale, which are equally important for organizational success.

Several limitations and challenges were encountered during this assessment. One major limitation was the inconsistency in data reporting across different sources. This discrepancy required cross-referencing multiple reliable sources to ensure accuracy, which was time-consuming. Another challenge was the presence of missing data points, especially in older reports. Data imputation techniques were used to estimate these missing values, but this approach may not always capture the true values accurately. Additionally, aligning data from different periods posed a challenge, as data timeliness varied across sources. Standardizing data to a common timeline helped mitigate this issue but required significant effort.

This assessment provided valuable learnings about the importance of a robust data-driven approach in decision-making. One key learning was the necessity of ensuring data quality and consistency. Future analyses can benefit from implementing more rigorous data validation

processes to enhance accuracy. Additionally, developing expertise in advanced data analysis tools and techniques can improve the efficiency and effectiveness of the analysis. Another area for improvement is the integration of qualitative factors into the analysis. Incorporating qualitative insights, such as employee feedback and market sentiment, can provide a more well-rounded understanding of the company's performance and strategic direction.

The future implications of data-driven decision-making for WeWork's portfolio are significant. As the business environment becomes increasingly complex and competitive, the ability to leverage data for strategic decisions will be crucial for maintaining a competitive edge. Data-driven insights can help WeWork anticipate market trends, identify opportunities for innovation, and mitigate risks more effectively. Additionally, the integration of advanced analytics and machine learning can enhance the accuracy and predictive power of future analyses, leading to more informed and proactive decision-making (Statista, 2023).

Review Material Insights:

The main point of the review material is to highlight the importance of a data-driven approach in making informed business decisions and to provide a comprehensive assessment of WeWork's performance through various data analysis techniques. Business leaders, managers, and analysts should care about the findings of this review as it provides valuable insights into effective data-driven decision-making. This is important because data-driven decision-making ensures that business strategies are based on objective and reliable information, leading to better outcomes and improved competitiveness. This information can be applied in various stages of business planning and strategy development, particularly when assessing company performance, identifying areas for improvement, and forecasting future trends. The one thing that surprised me was the extent to which qualitative factors, such as employee morale and market sentiment, can impact a company's performance and how integrating these factors with quantitative data can lead to more comprehensive and effective decision-making strategies.

Overall, this reflection underscores the value of a robust data-driven approach in enhancing WeWork's strategic decision-making processes. By addressing the identified weaknesses and challenges, and continuously improving data analysis capabilities, WeWork can better navigate future uncertainties and achieve sustainable growth.