



**College of Professional Studies  
Northeastern University San Jose**

**MPS Analytics**

**Course: ALY 6080**

**Assignment:**  
**MODULE PROJECT - 2**

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The dataset offered by 3DHEALS holds both advantages and disadvantages when evaluating the influence on business performance. This paper will cover the pros and cons of employing data in this situation, as well as the methods data can be used to convey a story and the potential for biased statistics.

### **Advantages:**

Enlightened decision-making: Data can be employed to recognize patterns, inclinations, and obstacles in the 3D printing and bioprinting healthcare sector, helping the organization make better-informed choices and adjust their strategies as needed (Huang et al., 2020).

Assessing impact: By examining data related to educational content, events, and community involvement, 3DHEALS can measure their impact and monitor their progress towards realizing business goals (3DHEALS, n.d.).

Discovering opportunities: Data can aid 3DHEALS in uncovering potential collaborative opportunities, inventive technologies, and areas with unmet needs in the industry, potentially leading to new business ventures and partnerships (Huang et al., 2020).

### **Disadvantages:**

Data reliability: The dependability and precision of data are essential for significant analysis. Incomplete, outdated, or incorrect data might result in false conclusions, negatively affecting business decisions and performance (Yilmaz & Rondinelli, 2020).

Privacy issues: Collecting and using data, particularly when handling personal information from community members or event participants, can raise privacy concerns and necessitate compliance with various data protection regulations (Yilmaz & Rondinelli, 2020).

Resource-demanding: Analyzing and interpreting large datasets can be resource-demanding and time-consuming, potentially diverting resources away from other vital business activities (Yilmaz & Rondinelli, 2020).

### **Data storytelling:**

Data can be employed to convey both optimistic and pessimistic narratives about an organization's performance. On the optimistic side, data can emphasize successful outcomes, such as increased event participation, enhanced customer satisfaction, or fruitful collaborations resulting from 3DHEALS' initiatives (3DHEALS, n.d.). In contrast, data can also reveal areas where the organization may be underperforming, such as decreasing engagement or negative feedback from community members (Yilmaz & Rondinelli, 2020).

### **Biased statistics:**

Statistics can be biased or manipulated in a variety of ways, such as selectively picking data points, using deceptive visualization techniques, or implementing unsuitable statistical methods (Simmons et al., 2011). This can lead to prejudiced conclusions and misrepresentation of a company's performance.

Additional pros and cons of data usage in assessing business performance:

**Pros:**

Benchmarking: Data can be employed to compare 3DHEALS' performance against industry norms or competitors, helping to identify areas of strength and weakness (Huang et al., 2020).

Predicting: Analyzing historical data can assist 3DHEALS in forecasting future trends and making proactive decisions to adapt to evolving market conditions (Yilmaz & Rondinelli, 2020).

**Cons:**

Over-reliance on data: Depending too heavily on data might lead to neglecting qualitative aspects, such as employee morale or customer relationships, which can also significantly impact business performance (Simmons et al., 2011).

Analysis paralysis: Excessive focus on data analysis can result in decision-making paralysis, where too much time is spent examining data rather than taking decisive action (Yilmaz & Rondinelli, 2020).

In summary, while data can offer valuable insights into an organization's performance and impact, it is crucial to be aware of its limitations and potential pitfalls. By ensuring data reliability, considering both quantitative and qualitative factors, and using appropriate statistical methods, 3DHEALS can effectively utilize data to drive business success and make informed decisions.

## References

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