Comprehensive Analysis of Software Products

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INTRODUCTION

The objective of this report is to investigate the relationship between two different variables. The variables are pricing model and ratings.

This project utilizes a Kaggle data set the project and to analyze and recommend the best BI software for different industries and business scales based on user requirements and ratings.

The Software Recommendation Dataset is a comprehensive collection of information about various software products, designed to assist businesses and individuals in making informed decisions about software purchases. This dataset encompasses a wide range of software categories, industries, business scales, user types, deployment methods, operating systems, mobile app availability, pricing models, and user ratings, also there are 101 rows in this data.

The primary purpose of this dataset is to provide a detailed overview of software products, enabling users to compare and evaluate different options based on their specific needs and preferences. It can be used for:

Market Analysis: Understanding trends and preferences in the software market.

Product Development: Identifying gaps and opportunities for new software products.

Business Decision-Making: Assisting businesses in selecting the most suitable software solutions.

Academic Research: Analyzing the impact of various factors on software product ratings and adoption.

By leveraging this dataset, stakeholders can gain valuable insights into the software landscape, make data-driven decisions, and ultimately enhance their software selection process.

- ## Methodology

Dataset introduction

We work with dataset scraped from the Kaggle dataset

Key Variables

Variables	Description
Category	Type of the BI software
Industry	Industry the BI software is targeted towards
Business scale	Scale of the business the BI software is intended for
User type	Type of users the BI software is designed for
No of users	Number of users the BI software supports
Deployment	Deployment model of the BI software
OS	Operating system(s) the BI software supports
Mobile apps	Availability of mobile apps
Pricing	Pricing model of the BI software
Rating	User rating the BI software

- ## Results and Findings

  Data analysis company use excel table and Sql .

1. Distribution of software ratings

The distribution of software ratings in figure 1shows a fairly balanced spread across different rating values, with a slight concentration around the 4. 0 and 4.5 marks.

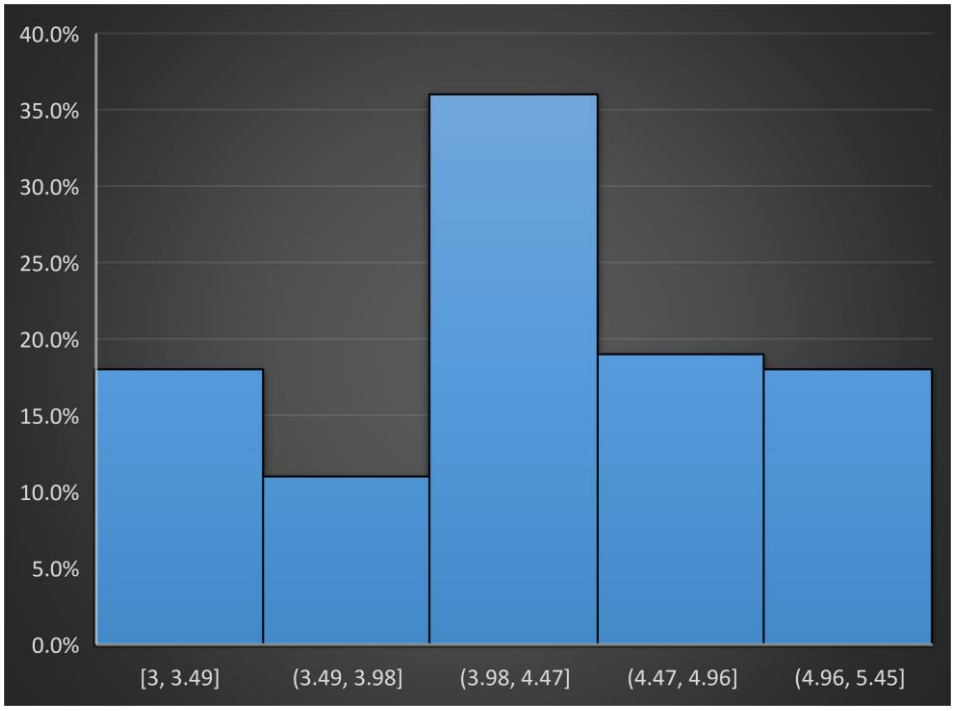

Figure 1: Distribution of ratings

2. Ratings for deployment method

The purpose of the chart in figure 2 is to investigate how the deployment method affects software products ratings. This chart shows that hybrid has the highest rating of approximately 4.13, the on premise has the least rating with 4.04 while cloud comes second with 4.05. In conclusion, the hybrid deployment is the most favored. This suggests that users might appreciate the flexibility and benefits of both cloud and on-premise solutions combined.

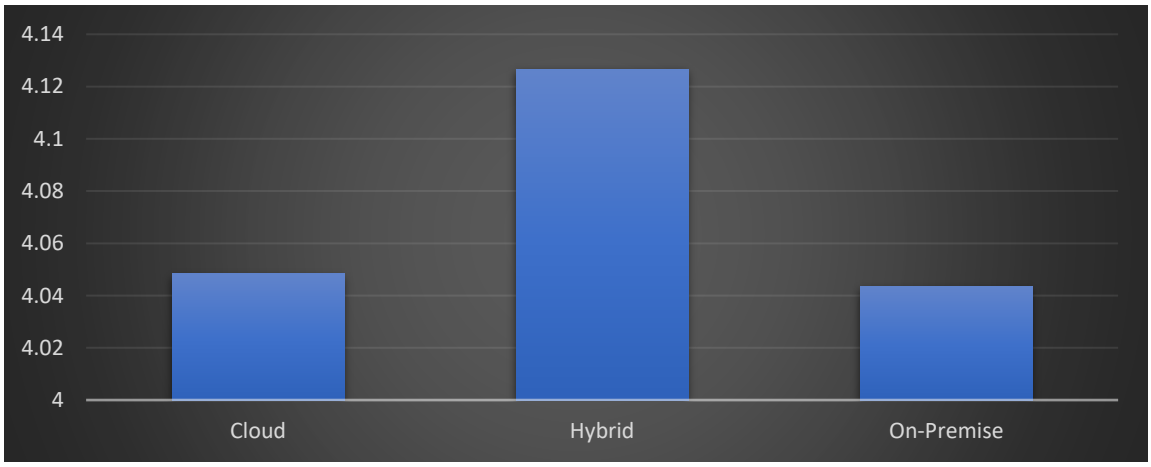

Figure 2: Relationship between deployment method and ratings

3. Distribution of software products across industries

The pie chart of figure 3 shows the distribution of software products across industries. Manufacturing, Academia, Utilities, Marketing, Fashion, and Retail are among the top industries with the highest number of software products. Industries like Telecommunications and Pharma have fewer software products compared to others.

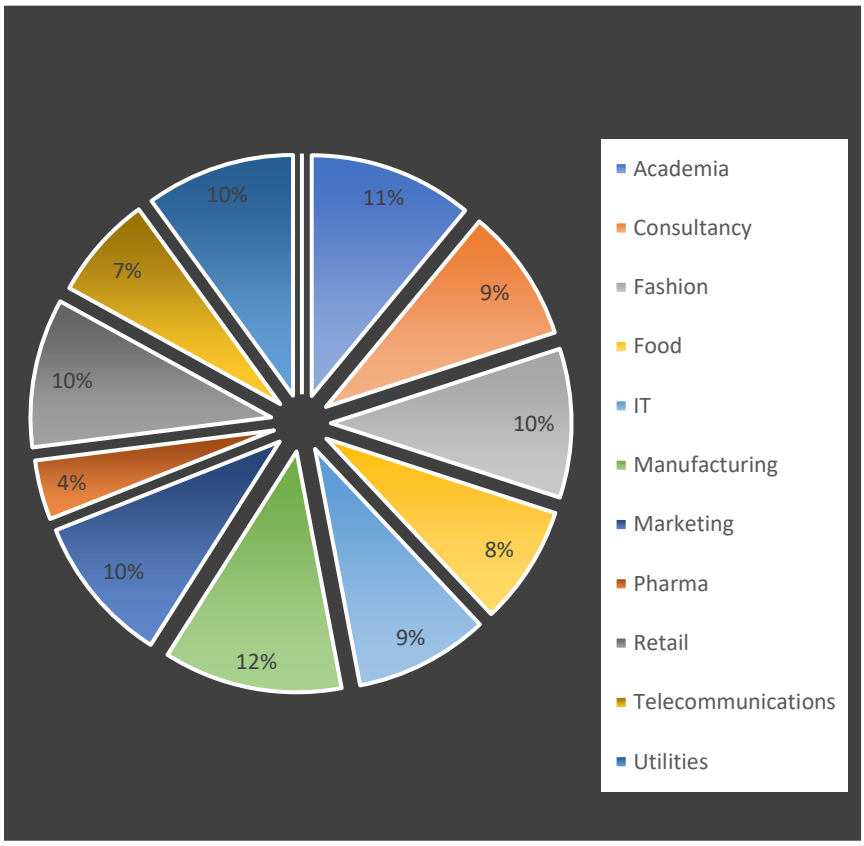

Figure 3: Products software by industry

4. Distribution products by business scale

The bar chart of figure 4 demonstrates the distribution of software products by business scale. Large and Medium business scales have the highest number of software products. This indicates that there is a significant focus on developing software solutions for these scales. However, Small and Enterprise business scales have fewer software products compared to others. This might suggest potential opportunities for developing more software solutions tailored to these scales.

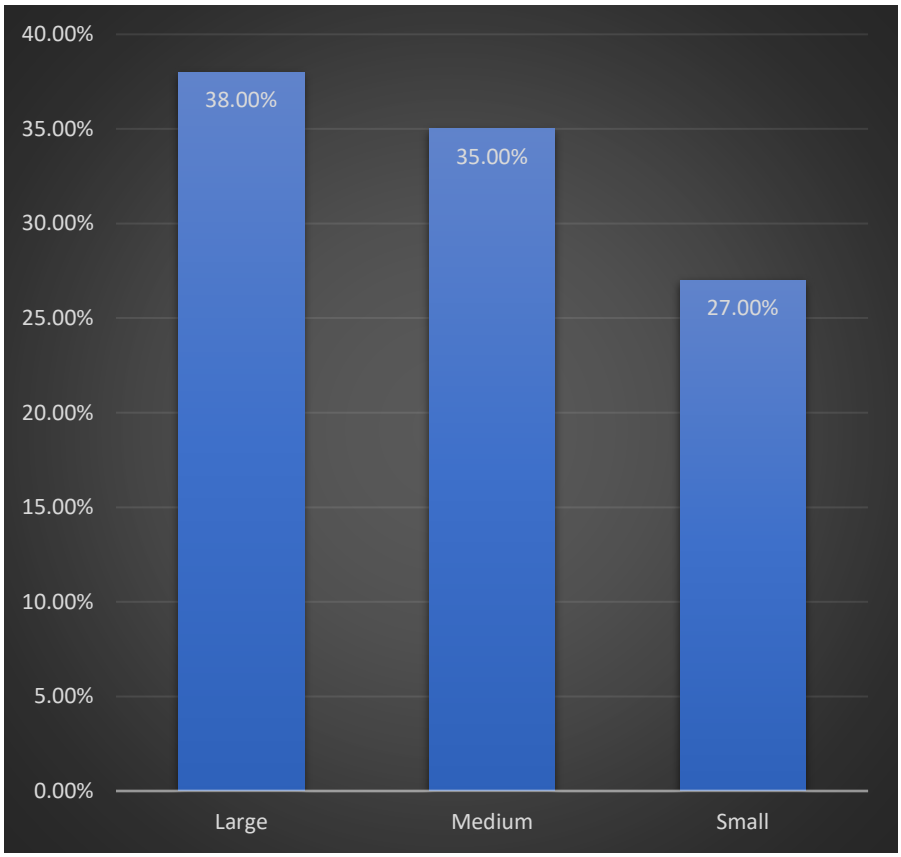

Figure 4: Products software by business scale

5. Distribution of pricing model

This figure shows the relationship between ratings and pricing model. Open Source and enterprise pricing models have the highest average ratings. This suggests that users might appreciate the flexibility and cost-effectiveness of these models. However, Freemium has the lower average rating compared to others.

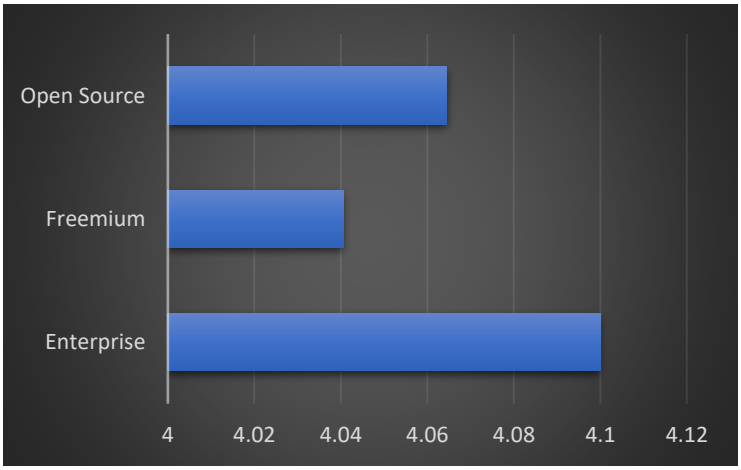

Figure 5: Pricing model by average rating

6. Distribution of software products

The goal of this line chart is to visualize the trend of software product ratings across various categories. Data Analysis, Database/ERP, and Data Management categories have the highest average ratings. This suggests that software products in these categories are highly valued by users, likely due to their critical role in business operations and decision-making. Categories like HR and Project Management have lower average ratings compared to others. This might indicate that users find these products less effective or less feature-rich.

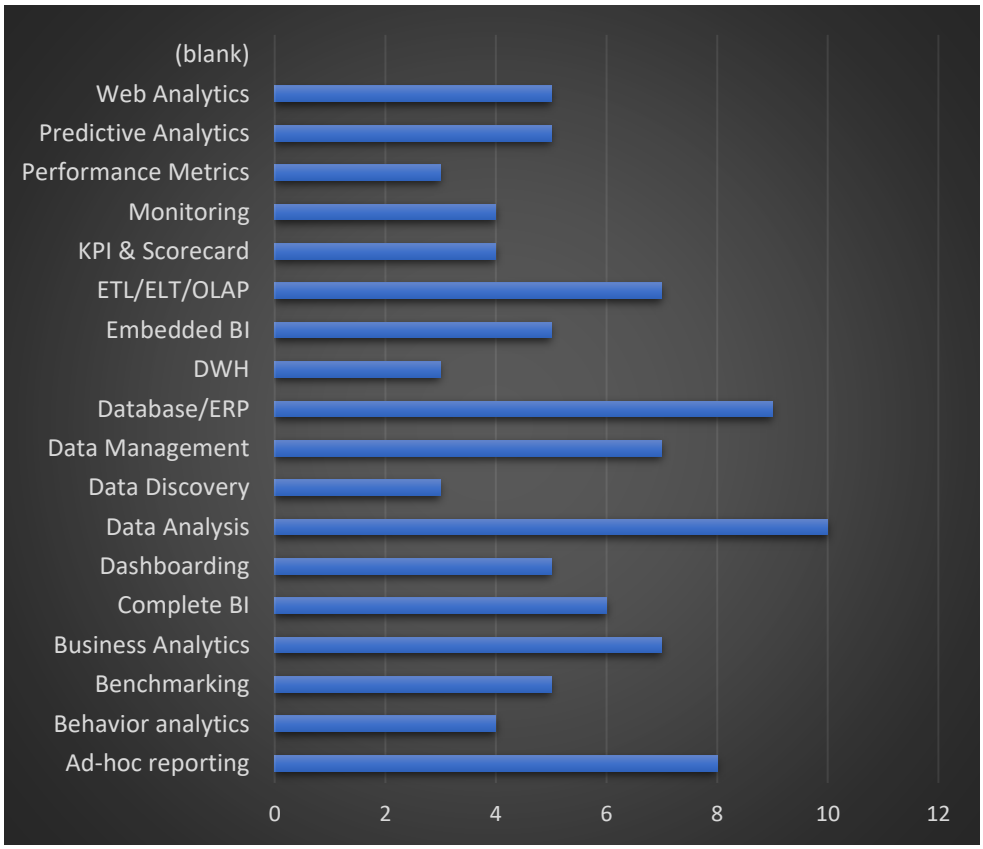

Figure 6: Software products across categories

• Conclusion

The Software Recommendation Dataset provides a rich and detailed overview of various software products, encompassing multiple dimensions such as categories, industries, business scales, user types, deployment methods, operating systems, mobile app availability, pricing models, and user ratings. Through comprehensive analysis, several key insights have been uncovered:

Deployment Methods:

Hybrid deployment methods receive the highest average ratings, indicating a strong user preference for the flexibility and benefits of both cloud and on-premise solutions.

Industry Distribution:

Industries such as Manufacturing, Academia, and Utilities have the highest number of software products, suggesting a significant focus on these sectors. Conversely, industries like Telecommunications and Pharma have fewer software products, indicating potential opportunities for new product development.

Business Scale Influence:

Software products designed for large businesses tend to have the highest average ratings, followed by medium and small businesses. This trend highlights the importance of scalability and comprehensive features for larger enterprises.

Pricing Models:

Open Source and enterprise pricing models are highly rated, reflecting user appreciation for cost-effective and flexible pricing strategies. Freemium pricing model, while still positively received, have slightly lower average ratings.

Category Trends:

Categories related to data and business intelligence, such as Data Analysis and Database/ERP, have the highest average ratings. This underscores the critical role these software products play in business operations and decision-making.

Implications

These insights can guide businesses, developers, and researchers in several ways:

Product Development: Focus on enhancing features and scalability for large enterprises, and explore opportunities in less saturated industries and lower-rated categories.

Pricing Strategies: Consider adopting or promoting flexible pricing models like Open Source and Freemium to attract and retain users.

Market Positioning: Leverage the strengths of highly-rated categories and deployment methods to differentiate products in a competitive market.

Final Thoughts

By leveraging the Software Recommendation Dataset, stakeholders can make data-driven decisions, identify market trends, and develop strategies that align with user preferences and industry demands. This comprehensive analysis not only aids in selecting the most suitable software solutions but also provides a foundation for future research and innovation in the software industry.