



Microsoft Capstone Project

UW MSBA X Microsoft Capstone Review 2024

Microsoft Learning & Revenue Data Points

Presented By

Gold Team





Today's Agenda: May 20, 2024

Our Roadmap

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- Summary of Recommendations



MSBA CAPSTONE GOLD TEAM

Meet Our Best Team



Andy Varness



Eason Hsieh



Nicky Ong



Queenie Chao



Jann Ang



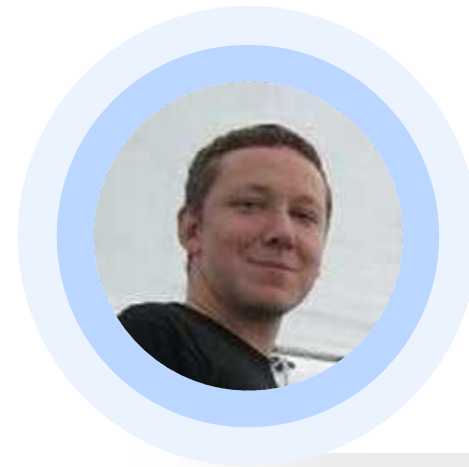
Junoh Jung



Pranav Vasan



Farin Fukunaga



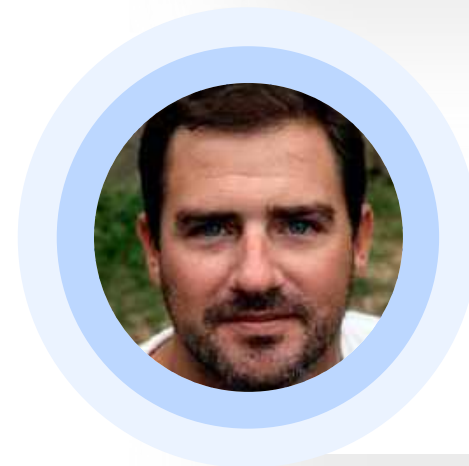
Sebastian Antinome

Director of Business Analytics at Microsoft



Carmen Pereña Cortés

Data Scientist II at Microsoft



Ben Boatman

Senior Analyst at Microsoft



Juhi Singh

Senior Data Scientist at Microsoft



Dr. Russell Walker

Professor at UW Foster School of Business



Dr. Zikun Ye

Assistant Professor at UW Foster School of Business

Our Best Advisors

Special Thanks

Thank you for your ongoing support and dedication to our learning and growth!

And our audience!



Project Goals & Findings

01

Do Enablement Programs Drive an Increase in Revenue?

- a) What variables affect revenue?
- b) What is the nature of the relationship, and how can we use this information to improve upskilling initiatives?

Business Implication: Participation in upskilling programs is strongly correlated with increased revenue generation. Role, Product Category, and Industry are key factors in boosting revenue.

02

Which Targeted Subsets of Product Consumption are Impacted Differently?

- a) Who are the different customer segments and what are their characteristics?
- b) How can we cater upskilling courses to these segments to maximize product consumption?

Business Implication: Enablement programs do not uniformly affect all customer segments. E.g., high-engagement segments may see a significant uptick in product consumption as a direct result of these programs, while low-awareness clients may require a different kind of engagement to see similar results.

Dataset Overview

What data are we working with?

CLASS DATA	Customer	Control	Tier	Course	Time	People Goal	Course Group	Target	Customer Type	People
	1	0	Blue	1022	A	10	General	Role A	Amphibians	1
	2	1	Red	1314	B	20	Basic	Role B	Birds	2
	3	0	White	2525	C	30	Advanced	Role C	Fish	3
	4	1	NA	2960	D	40	General	Role D	Invertebrates	4
	5	0	Blue	3575	E	50	Basic	Role E	Mammal	5

REVENUE DATA	Customer	Time	Location	Business	Spend Group	Spend Index	T-Shirt Size
	1	A	Ismorada	Serpentine	Meat	1	Petite
	2	B	Destin	Moonstone	Fruit	2	Small
	3	C	St Petes	Agate	Grains	3	Medium
	4	D	St George	Sapphire	Fish	4	Junior
	5	E	Siesta Key	Garnet	Meat	5	Large



Does Microsoft's Enablement Programs Drive an Increase in Revenue?

XGBoost Overview

XGBoost is a powerful machine learning algorithm that helps us understand complex data by finding patterns that affect Microsoft's revenue. By analyzing past data, XGBoost helps answer whether our training programs lead to increased revenue, ensuring our strategies are backed by solid evidence and insights.

Objective

- ✓ Assess the impact of participation in enablement programs on revenue across different customer segments.
- ✓ Identify critical features and their specific roles in influencing revenue to optimize resource allocation and strategy development.

Business Implications

- ✓ Our analysis confirms that Microsoft's enablement program is directly linked to increased revenue, underlining their critical role in driving business growth and enhancing customer engagement with cloud technologies.





Business Assumptions

We dropped following columns (explanatory variables) in the model :



Customer

Customer account number **doesn't provide substantial value** to understand customer information, thus not relevant for model or us to learn the impact on revenue.



Time (Month)

Assuming these enablement program is online class, **customers can access to them regardless of the time, location, or other physical constraints**. Therefore, it makes more sense for us to assume that Time is not a meaningful factor.



People Goal Size

Potential class size is removed, considering the nature of online enablement program. Customers can select courses whenever they want, so they **don't need to follow the limit of class size**. If they can't make it to the specific course, they can just switch to another one with same content. Therefore, we believe People Goal is irrelevant to impact the revenue.



Spend Index Aggregation Example

For precise comparison, a normalized index is created to consistently compare revenue across diverse customer sizes, represented as T-shirt sizes from 'Micro' to 'Supersized'. **Note:** T-shirt refers to revenue generated in a month for a particular customer. There seven different T-shirt sizes.

01

Amount of revenue generated by a company in month						
Supersized T-Shirt	Beefy T-Shirt	Large T-Shirt	Junior T-Shirt	Medium T-Shirt	Petite T-Shirt	Micro T-Shirt
6	15	12	18	19	13	13

02

Extract the maximum value of revenue generated for each T-shirt size						
Supersized T-Shirt	Beefy T-Shirt	Large T-Shirt	Junior T-Shirt	Medium T-Shirt	Petite T-Shirt	Micro T-Shirt
11	20	22	25	23	29	30

03

Finding the place value of the concatenated number. Method: $\text{round}(\text{T Shirt Size_SuperSized} / \text{max}(\text{T Shirt Size_SuperSized}) * 10)$						
Supersized T-Shirt	Beefy T-Shirt	Large T-Shirt	Junior T-Shirt	Medium T-Shirt	Petite T-Shirt	Micro T-Shirt
5	7	5	7	8	4	4

E.g., $6/11*10 = 5.44$,
which rounds to 5

Concatenated Number

5757844



Key Drivers of Revenue

Business Implication: Strong sales in fruits and meat product categories, participation in industry-specific strategies within the Serpentine and Peridot industries, and training tailored to specific roles and tiers significantly enhance revenue, emphasizing the importance of targeted initiatives across these key drivers.



Role



Engagement in training programs tailored to these **roles B, C, E** correlates with a significant increase in revenue, suggesting that these roles are pivotal in driving revenue.

Recommendation: Boost revenue by enhancing training for roles B, C, and E, focusing on expanding course offerings and participation rates



Product Category



Fruits and **Meat** product categories are significant drivers of revenue, with strong sales in these categories positively impacting overall financial performance, indicating that these should be prioritized in the enablement program.

Recommendation: Maximize revenue by strategically promoting Fruits and Meat product categories, focusing marketing efforts to boost sales in these key areas



Business Industries



Companies operating within the **Serpentine** and **Peridot** industries significantly enhance revenue, suggesting targeted strategies in these industries could yield substantial revenue gains.

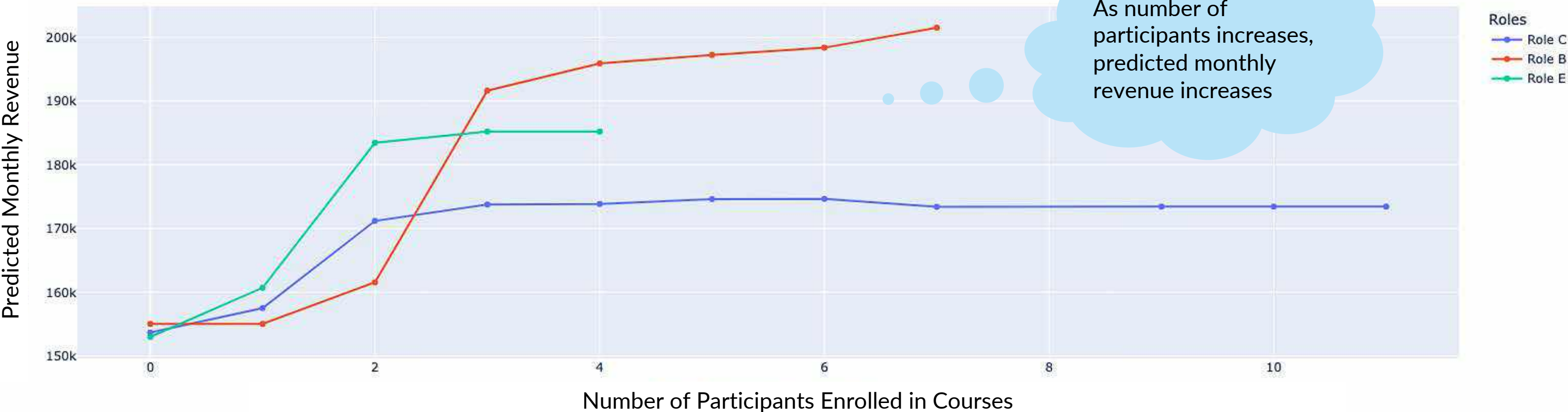
Recommendation: Boost engagement and revenue by tailoring solutions and promotions to meet the unique needs of customers in the Serpentine and Peridot industries.



Target Role Matter

Business Implication: Training employees in specific roles, particularly Roles B and C, is crucial as it directly correlates with a substantial increase in revenue. This strategic focus not only enhances skill levels but also drives higher consumption and engagement with Microsoft's cloud services.

How Training for Roles B, C & E Affects Monthly Revenue



B 29.95% ↑

Increase in monthly revenue as number of participants increases from 0 to 7

C 12.88% ↑

Increase in monthly revenue as number of participants increases from 0 to 11

E 21.05% ↑

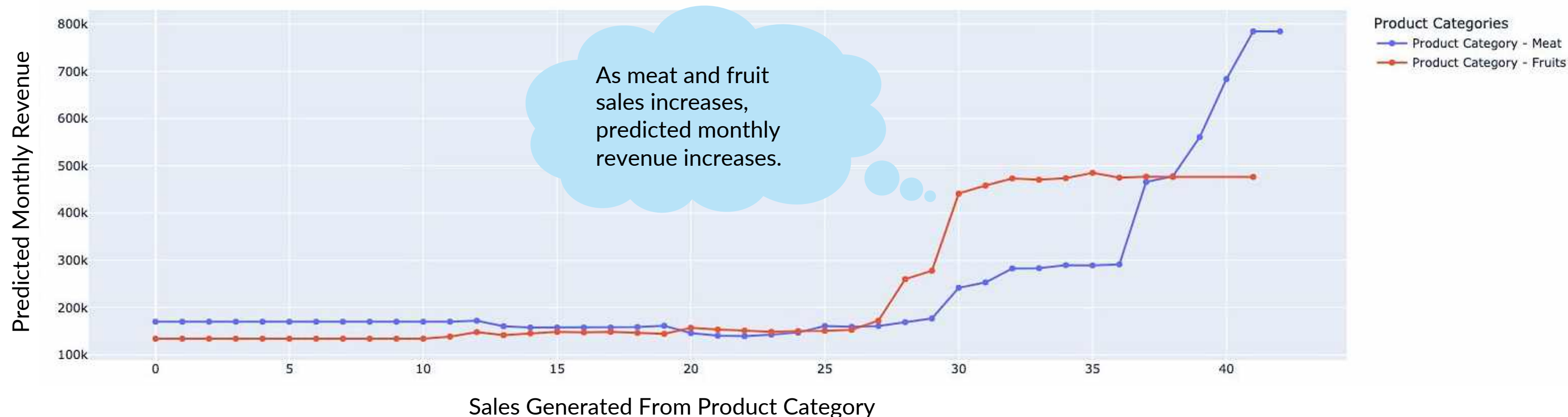
Increase in monthly revenue as number of participants increases from 0 to 4



High-Impact Product Categories

Business Implication: Increased sales in key product categories such as meat and fruits are strongly correlated with spikes in revenue, highlighting the potential for targeted marketing and sales initiatives to amplify growth in these crucial product categories.

How Product Category Sales Influence Revenue



342.83%



Increase in monthly revenue as number of spending increases from 29 to 42 units



176.41%



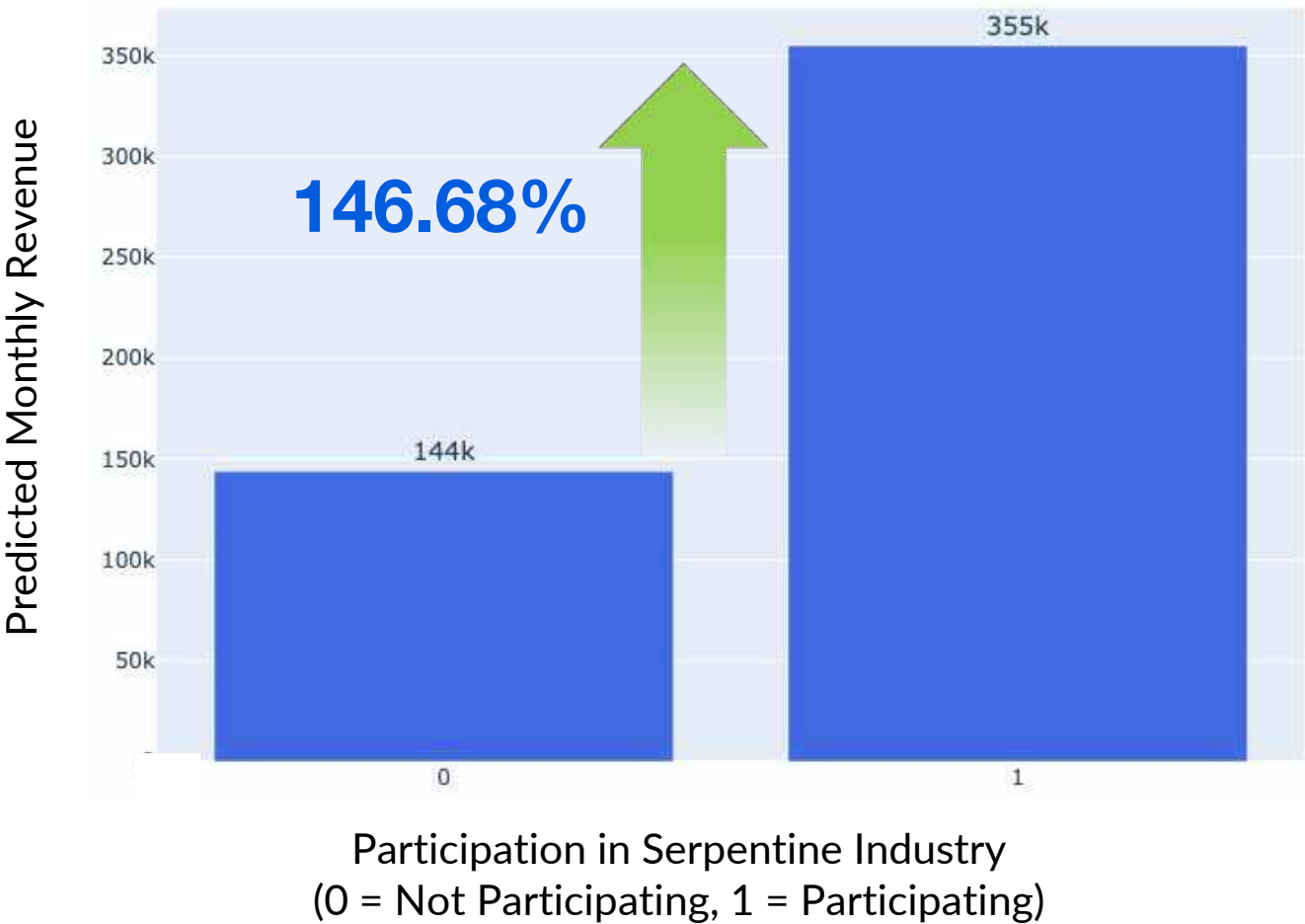
Increase in monthly revenue as number of spending increases from 27 to 41 units




Effect of Customer Industry on Revenue

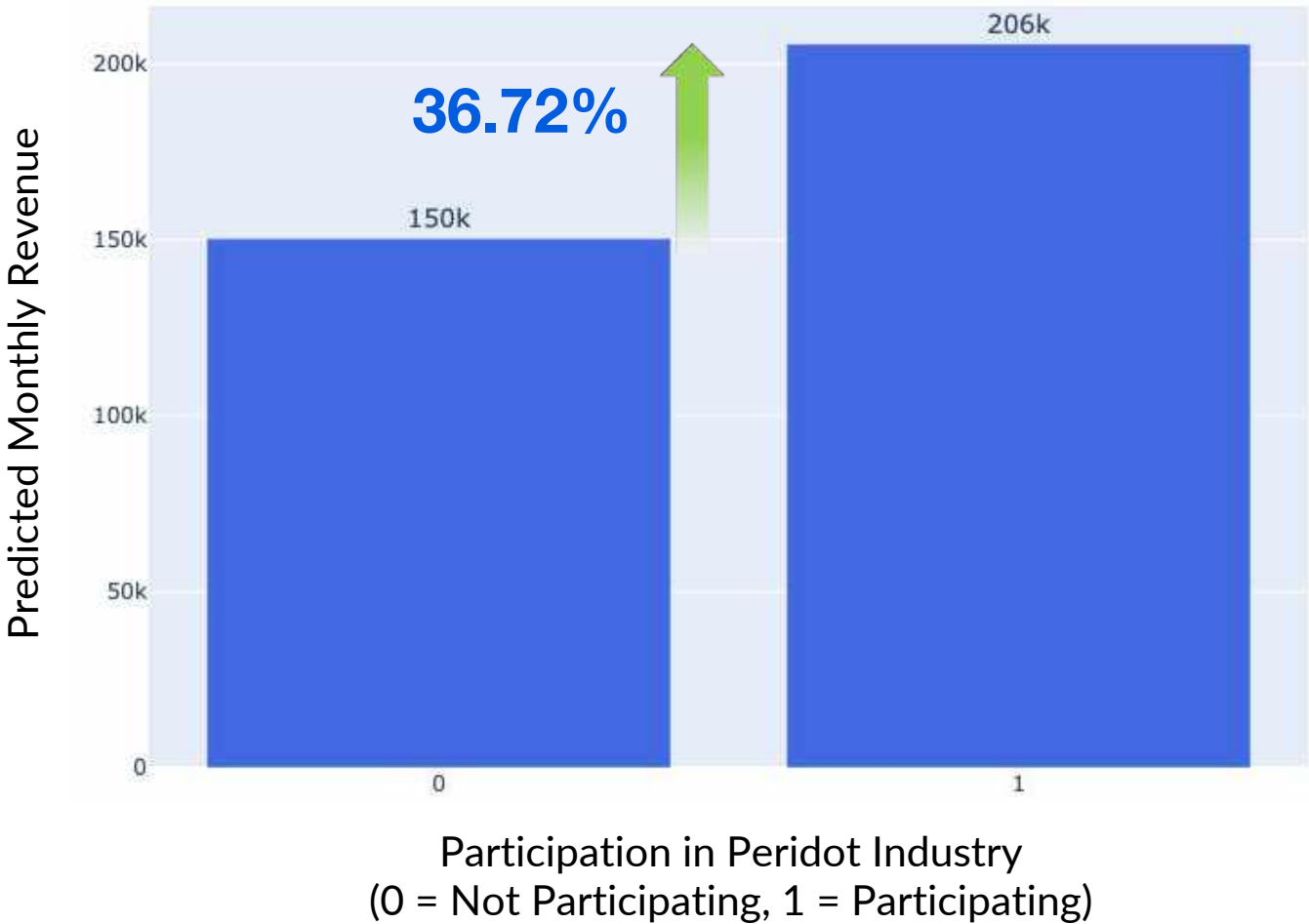
Business Implication: Engagement in the Serpentine and Peridot industries markedly boosts revenue, underscoring the value of industry-specific enablement programs in driving significant financial performance improvements.


Impact of Serpentine Industry Participation on Revenue



 Customers operating in the Serpentine Industry generate 146.68% more in revenue

Impact of Peridot Industry Participation on Revenue

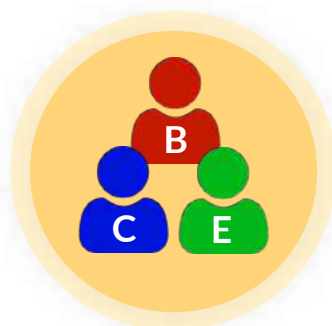


 Customers operating in the Peridot Industry generate 36.72% more in revenue



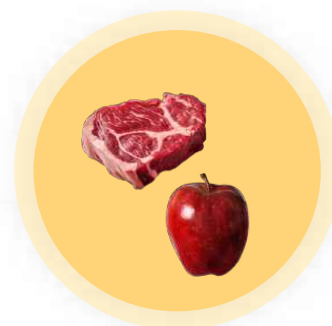
Strategic Recommendations

Based on Key Drivers of Revenue



Expand Role-Specific Training

- ✓ Intensify training for roles B, C, and E, as our data shows that targeted training in these roles correlates strongly with increased revenue.
- ✓ Aim to increase course offerings and participation rates in these roles to enhance overall revenue.



Prioritize High-Impact Product Categories

- ✓ Our analysis highlights Fruits & Meat product categories as significant drivers of revenue, suggesting that strategic promotions and targeted sales initiatives towards these categories could amplify growth in revenue.
- ✓ Focus marketing and sales efforts on Fruits and Meat product categories to increase spending in these product categories.



Customized Solutions and Incentives For Serpentine & Peridot Industries

- ✓ Offer customized solutions and incentives that cater specifically to the operational needs and pain points of customers operating in the Serpentine and Peridot industries.
- ✓ Design special packages or promotions that make it more attractive for businesses in these industries to increase their investment in cloud technologies and training programs.



Which Targeted Subsets of Product Consumption are Impacted Differently?

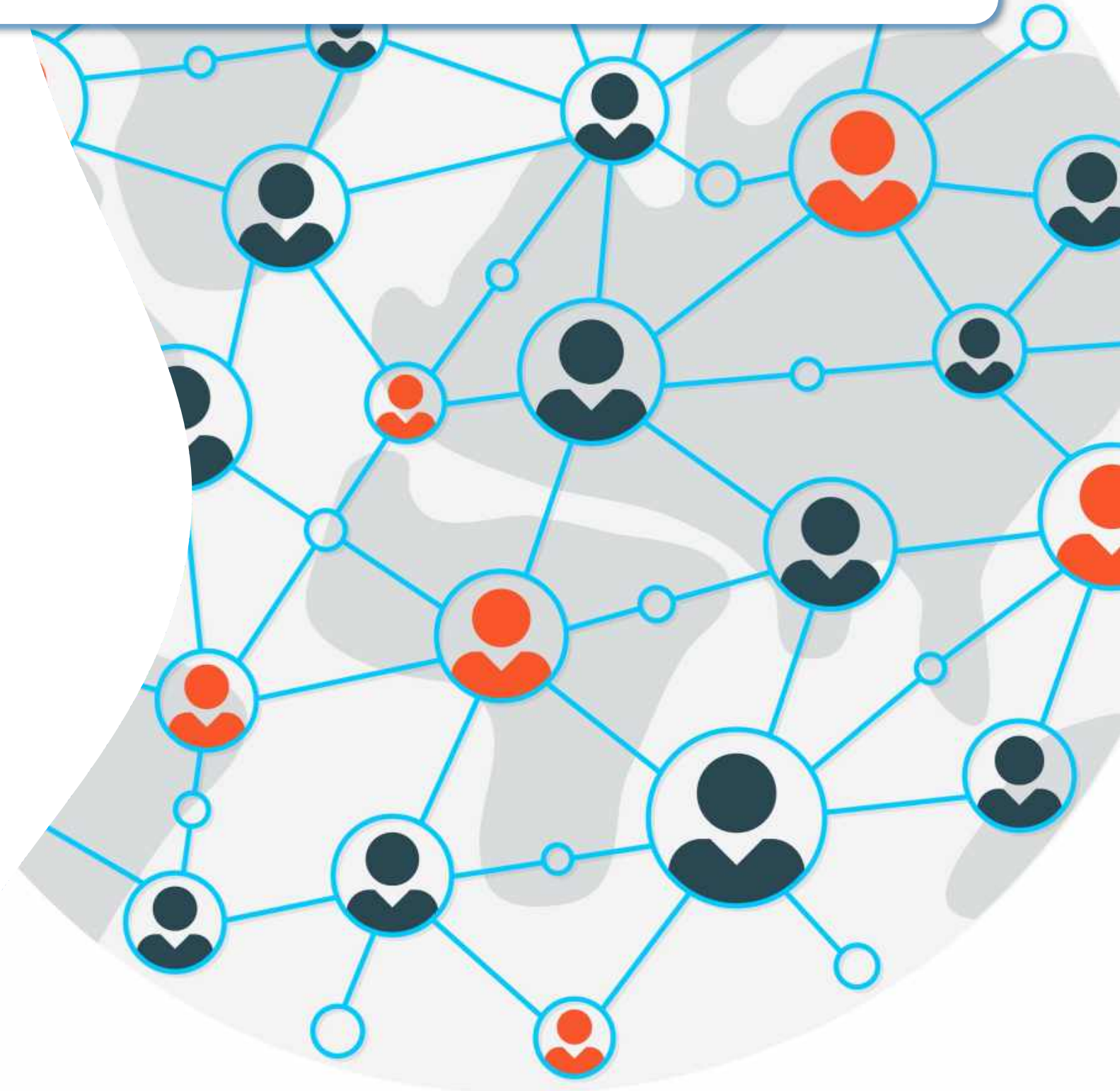
K-Prototypes Overview

A hybrid clustering algorithm that assigns data points to clusters based on similarity in both numerical and categorical features, providing a comprehensive segmentation approach.

Benefits of Customer Segmentation

- ✓ **Target Marketing:** Enables Microsoft to tailor products or services more precisely to specific customer segments, thereby increasing sales efficiency and engagement.
- ✓ **Resource Allocation:** Allocate more resources to customers who potentially generate more revenue to increase conversion rates from customer acquisition to higher revenue.

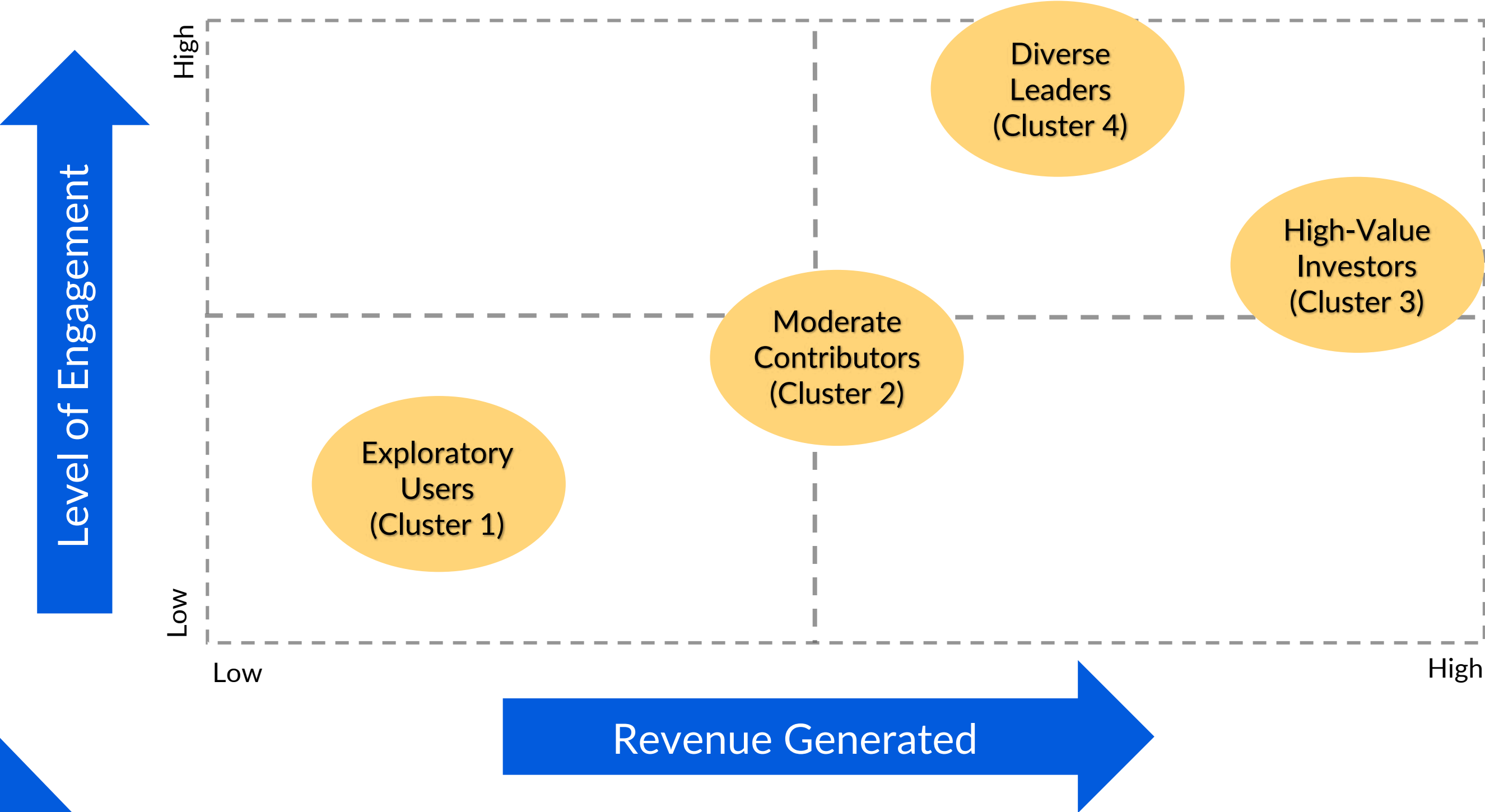
Business Implications: Some segments of customers generate significantly higher revenue than others. Utilizing customer segmentation for targeted marketing can lead to higher engagement, conversion rates, and ultimately, increased revenues.





There are **4 distinct groups** based on their level of engagement and the revenue they generate. **Engagement** refers to how actively customers interact with your offerings, including **product usage and participation in courses**. **Revenue generated** is a direct measure of the **financial impact** these engagements have on Microsoft business.

Customer Segmentation Map

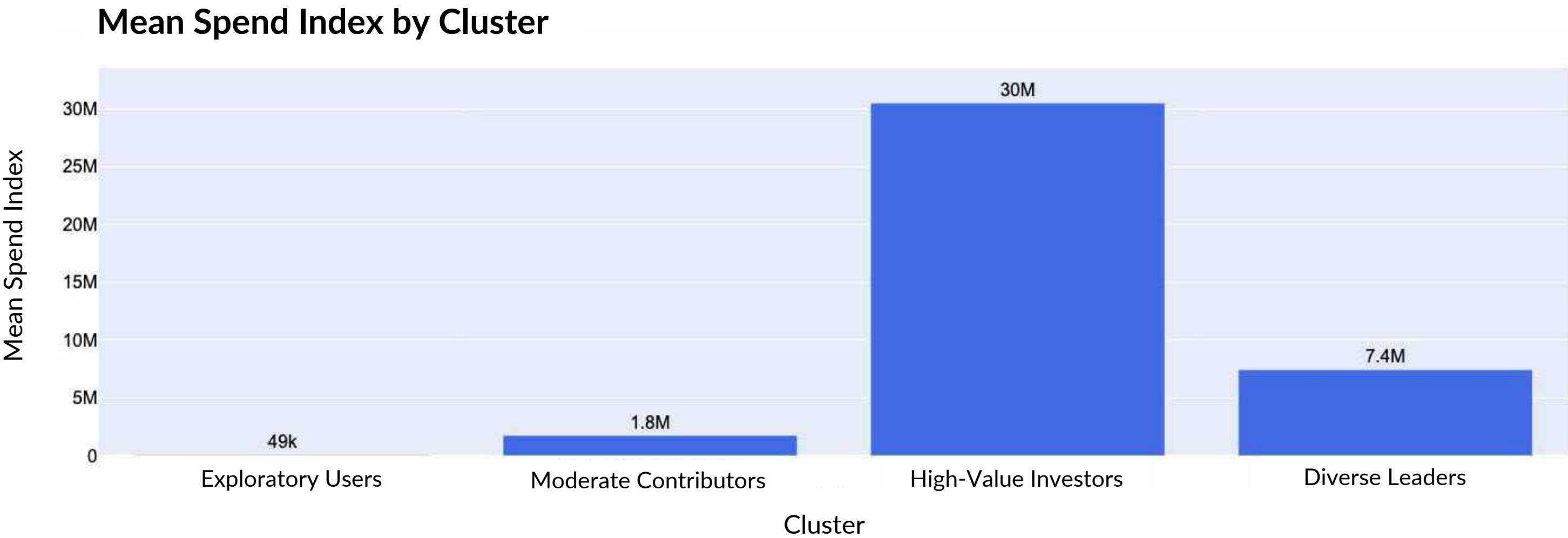




K-Prototypes Clustering (cont.)

Factor 1: Spend Index

The Spend Index plays the most crucial role in each cluster. Customers in each cluster respond significantly differently to the Spend Index, with **cluster 3 generating the most average revenue** and **cluster 1 generating the lowest average revenue**.

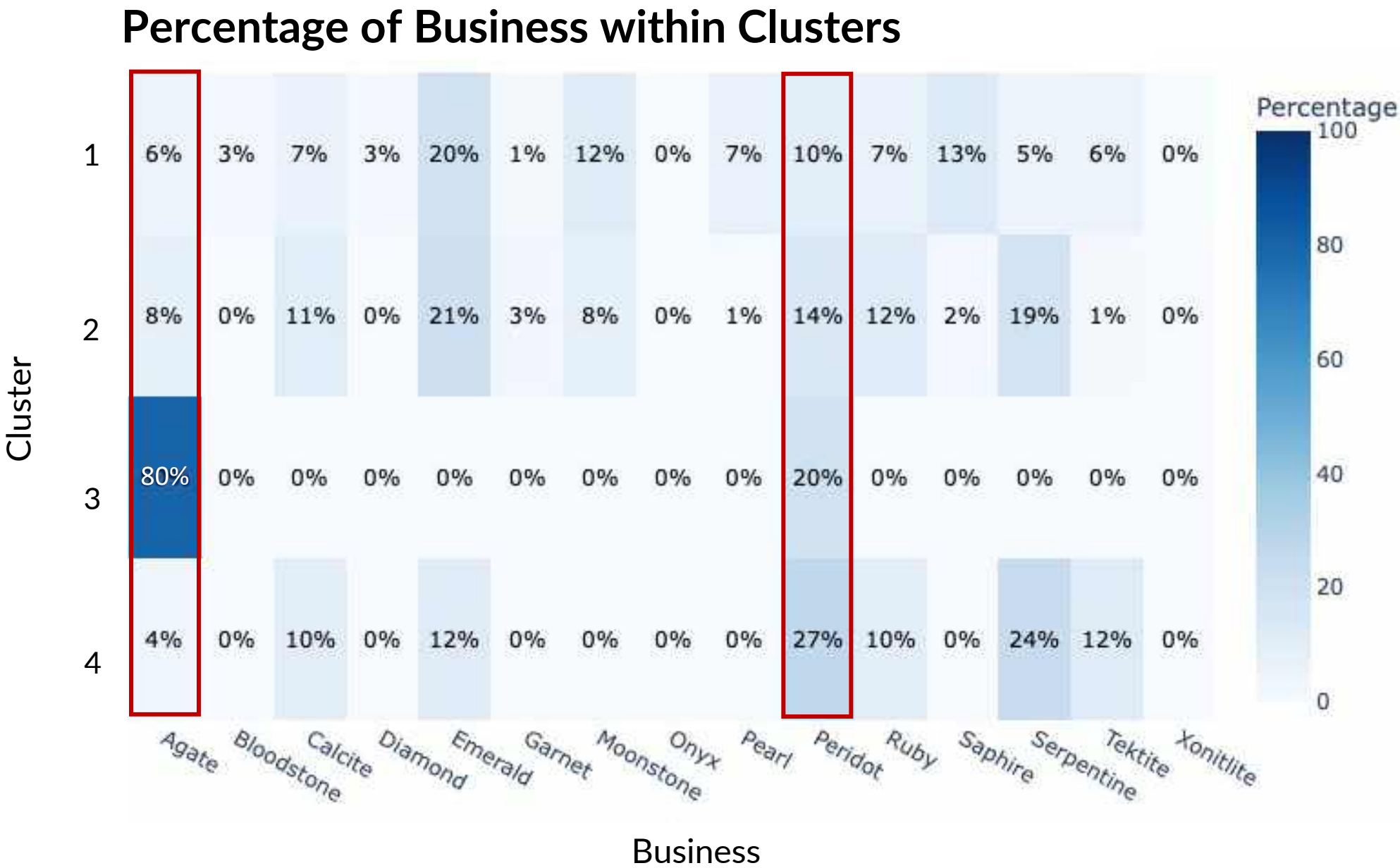




K-Prototypes Clustering (cont.)

Factor 2: Business Industry

Most companies generating high revenue, such as those in [cluster 3 and cluster 4](#), operate in the [Agate and Peridot industries](#), respectively, while those with lower revenue, like cluster 1 and cluster 2, are predominantly in the Emerald industry.





K-Prototypes Clustering (cont.)

Recommendation

Attract more customers in the Birds customer type to increase revenue.



Clusters with a higher percentage of **Birds customers** also indicate higher revenue, demonstrating a positive relationship between Bird customers and revenue.

Percentage of Customer Type within Clusters





K-Prototypes Clustering (cont.)

Recommendation

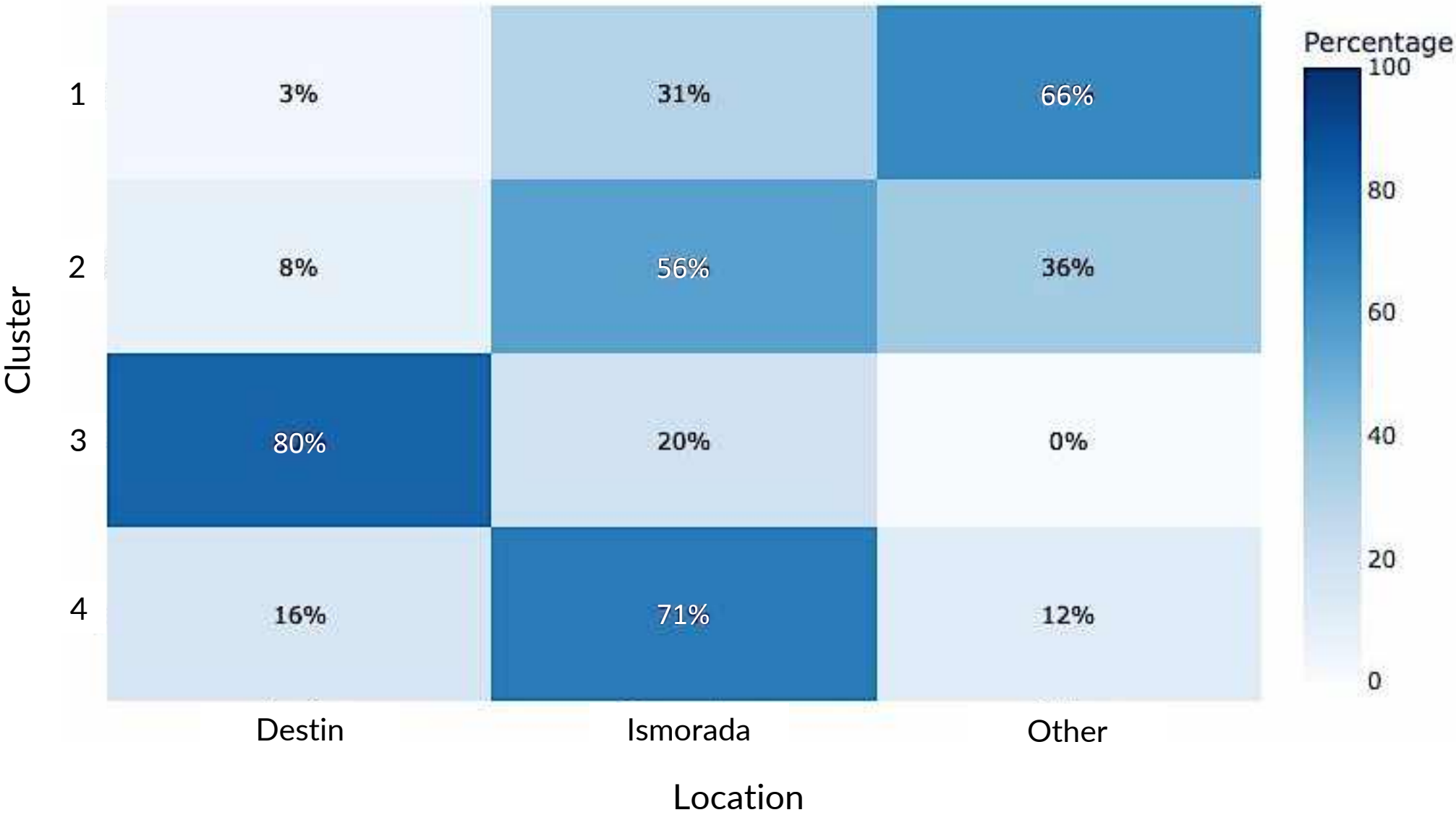


Allocate more resources and marketing efforts to companies in **Destin**, as a significant number of customers there generate higher revenue.



Ismorada seems to be the biggest market for Microsoft. Hence, Microsoft may delve into the customer needs for customers located in Ismorada.

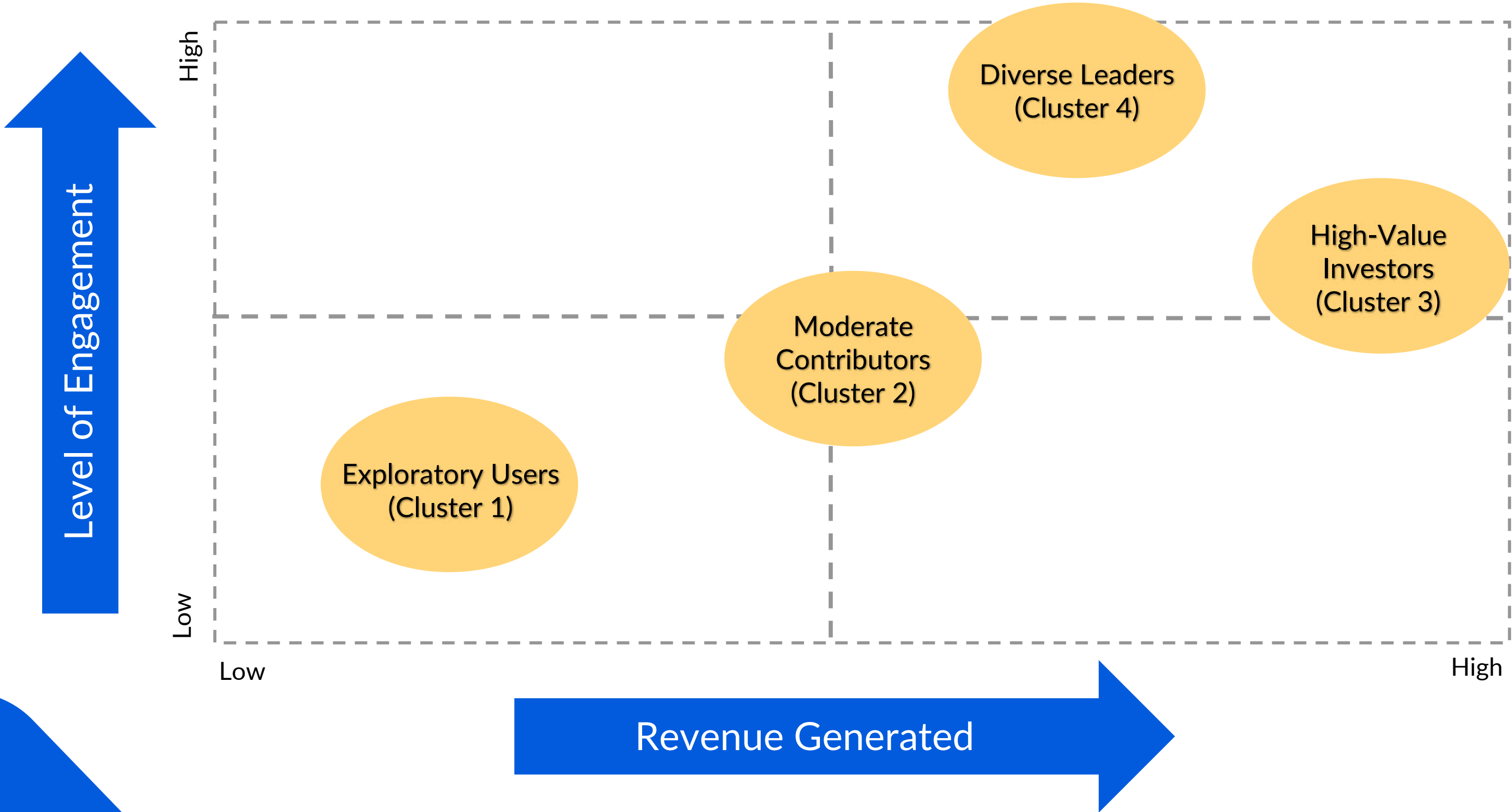
Percentage of Customer Type within Clusters





Let's analyze the customer segmentation map to understand diverse customer needs and behaviors. This will allow us to tailor our strategies for maximum engagement and revenue.

Customer Segmentation Map





Exploratory Users (Cluster 1)

Low engagement, Lowest revenue generated

49,427
Spend Index*

Lowest revenue generated amongst all clusters
Suggests cautious or limited financial engagement with the offerings

3.4

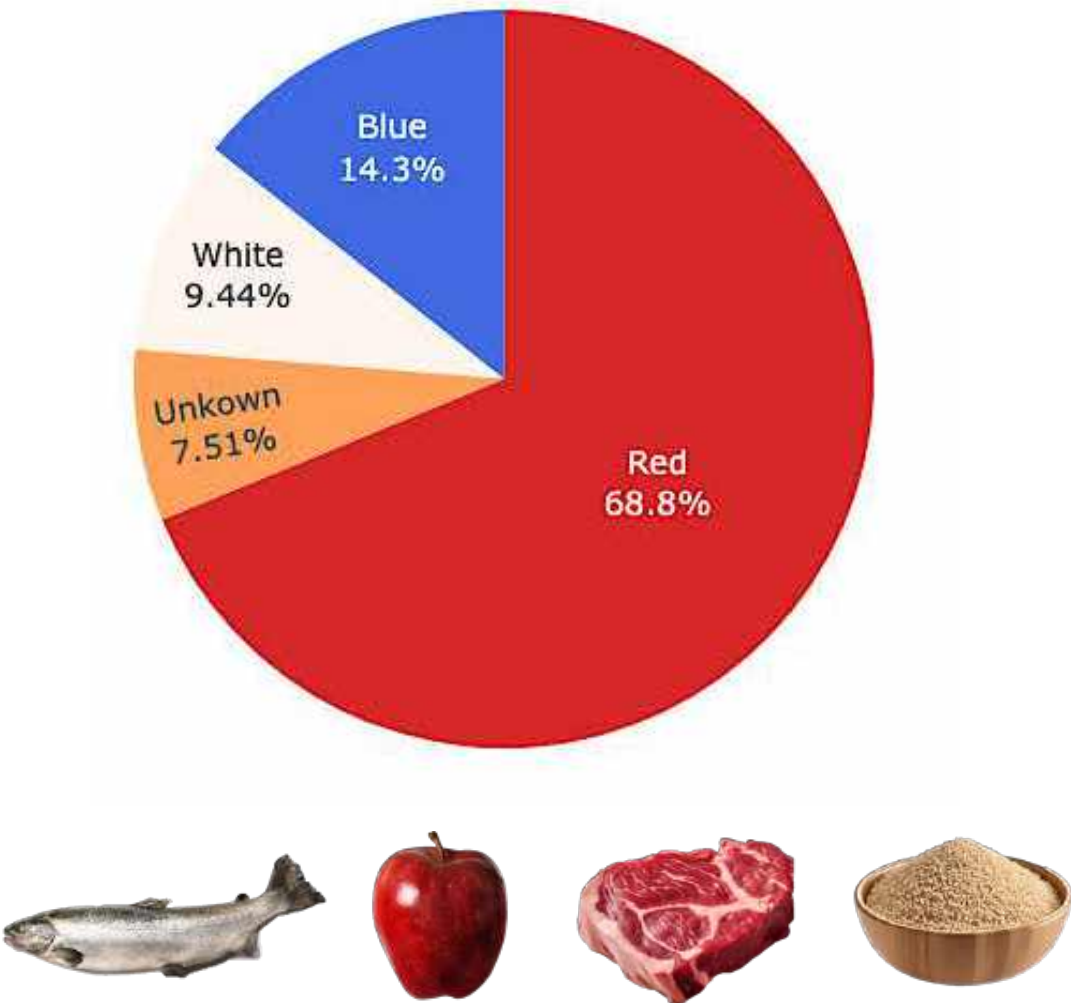
Average number of participants taking courses within a time period
Suggests that these companies might be in the initial stages of using your products or they choose to engage sporadically

<1 participant (on avg)

For all the courses across all roles

Limited engagement across all roles
Suggest unawareness of the full benefits of the training programs or a strategic choice to prioritize certain areas due to budget constraints or organizational focus.

Distribution of Tier in Cluster 1



Lowest in All Product Category (on avg)

Suggest either limited resources, lower perceived benefits from these offerings, or possibly a lack of awareness about their potential impact.

*The higher the spend index, the higher the revenue generated. Spend index range from 0 to 36 million.



Exploratory Users (Cluster 1)

Low engagement, Lowest revenue generated

Business Implications: Role A, the most represented, suggests some roles are more engaged than others. This disparity in engagement across roles could indicate that current training offerings are not equally appealing or relevant to all roles.

Distribution of Each Role in Exploratory Users



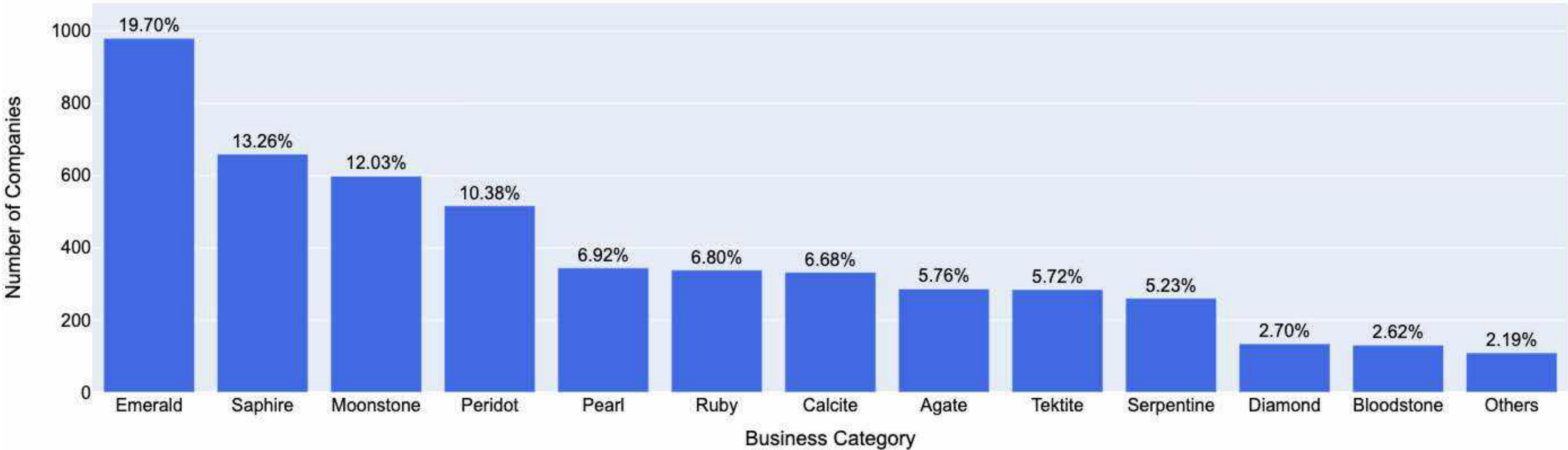


Exploratory Users (Cluster 1)

Low engagement, Lowest revenue generated

Business Implications: Emerald and Sapphire are the most common business types within the Exploratory Users, suggesting these types might be more open to experimentation or new technologies but are not fully leveraging the offerings to their potential.

Distribution of Business Types in Exploratory Users





Build awareness of upskilling opportunities

Strategic Recommendations

For Exploratory Users (Cluster 1)



Development of Customized Learning Paths

E.g., Create industry-specific webinars that address common challenges faced by Emerald and Sapphire businesses and show how Microsoft products can solve these challenges.



Incentivization and Trials

Encourage trial and adoption by offering time-bound free access to certain features or discounts on subscriptions. **E.g. A three-month free trial of Microsoft Azure or Dynamics 365 for companies that have never used these services.**



Increase Awareness About Product Benefits

E.g., A multimedia campaign that showcases success stories from similar businesses in the cluster that have successfully integrated Microsoft solutions and seen tangible benefits.



Moderate Contributors (Cluster 2)

Moderate course count, Balanced participation, Diverse spending

1,750,901
Spend Index*

Moderate but substantial investment
Companies are more engaged than Exploratory Users but are not investing at the high levels seen in Cluster 3 but higher than Cluster 1, possibly balancing cost against perceived benefits more cautiously.

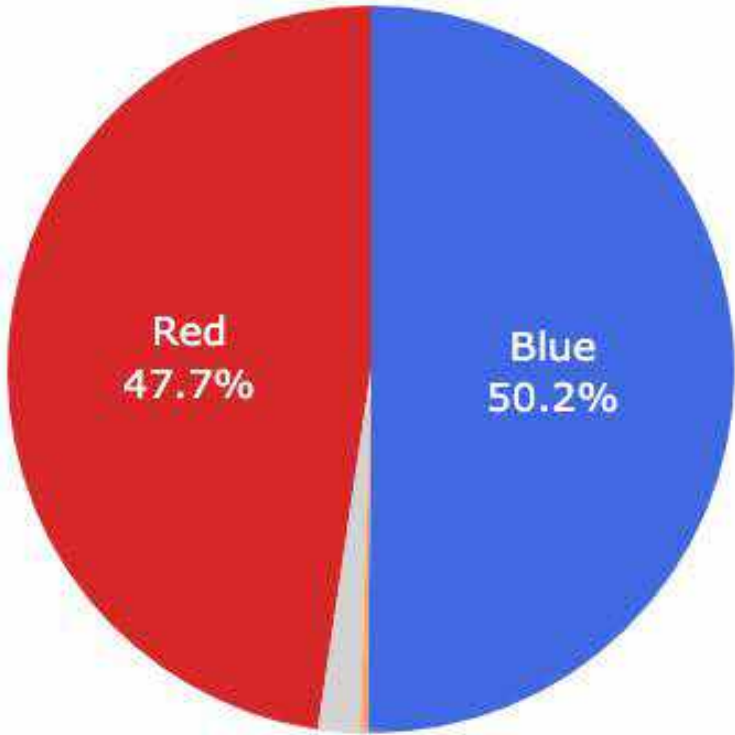
6.8

Average number of participants taking courses within a period
Suggests a balanced approach, where companies engage more than the Exploratory Users but are not as intensely involved as the High-Value Investors.

1.43 participant (on avg)
For all the courses across all roles

Low engagement across all roles
From Target Role B ~ M shows the low balanced participation across these roles.

Distribution of Tier in Cluster 2



Moderate in All Product Category (on avg)

Fruits and Meat shows as the highest revenue generator within this product category.

*The higher the spend index, the higher the revenue generated. Spend index range from 0 to 36 million.



Moderate Contributors (Cluster 2)

Moderate course count, Balanced participation, Diverse spending

Business Implications: Target Role A is the most engaged. The diversity in role engagement within this cluster suggests that while some roles are heavily invested in utilizing your services, others remain underutilized. This pattern points to an opportunity to investigate why certain roles are not engaging as deeply and to develop targeted strategies to increase their usage.

Distribution of Each Role in Moderate Contributors



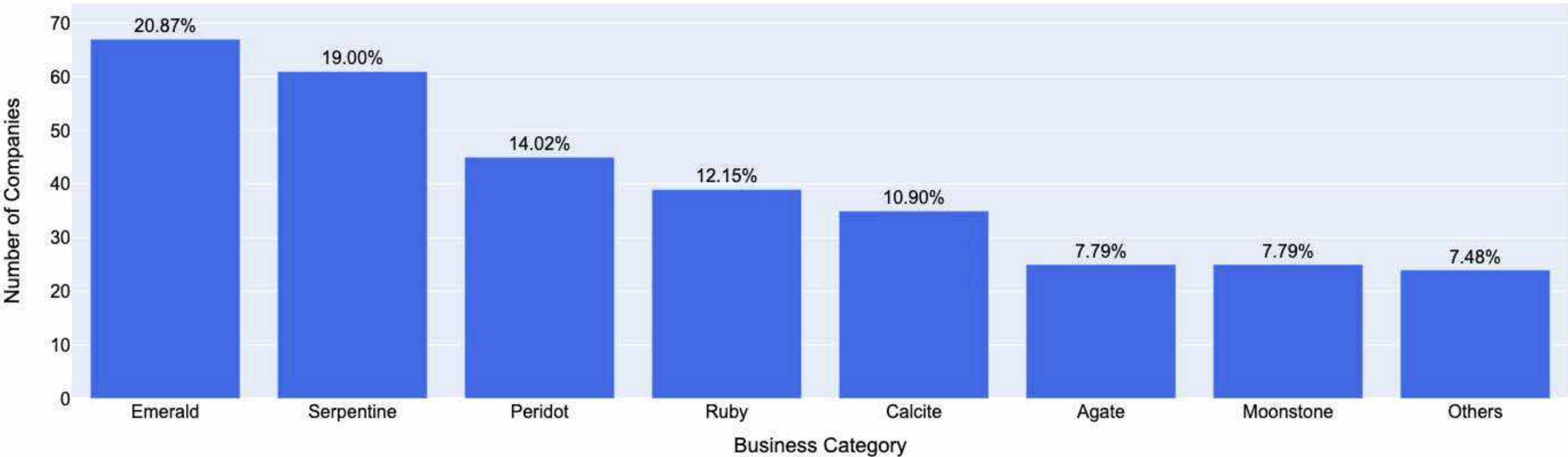


Moderate Contributors (Cluster 2)

Moderate course count, Balanced participation, Diverse spending

Business Implications: The Emerald and Serpentine business industry have significant participation so targeting these specific industries to their needs could generate more revenue.

Distribution of Business Types in Moderate Contributors





Develop relationship to increase engagement

Strategic Recommendations

For Moderate Contributors (Cluster 2)



Targeted Role Specific Content

Customized workshops specifically tailored to target roles from B to M to increase engagement. These workshops can cover topics relevant to their responsibilities and highlight how the program benefits their specific roles.



Industry Focused Approach

Develop content that addresses the unique challenges faced by the Emerald and Serpentine business industry. Highlight success stories related to their domain. Host Emerald and Serpentine business industry specific conference for professionals to network.



Tier Expansion and Engagement

Build a referral program to encourage existing participants especially Blue tier to refer colleagues. Offer incentives such as discounts and exclusive content.



High-Value Investors (Cluster 3)

Higher course count, High-value specialization, High spending

30,492,599
Spend Index*

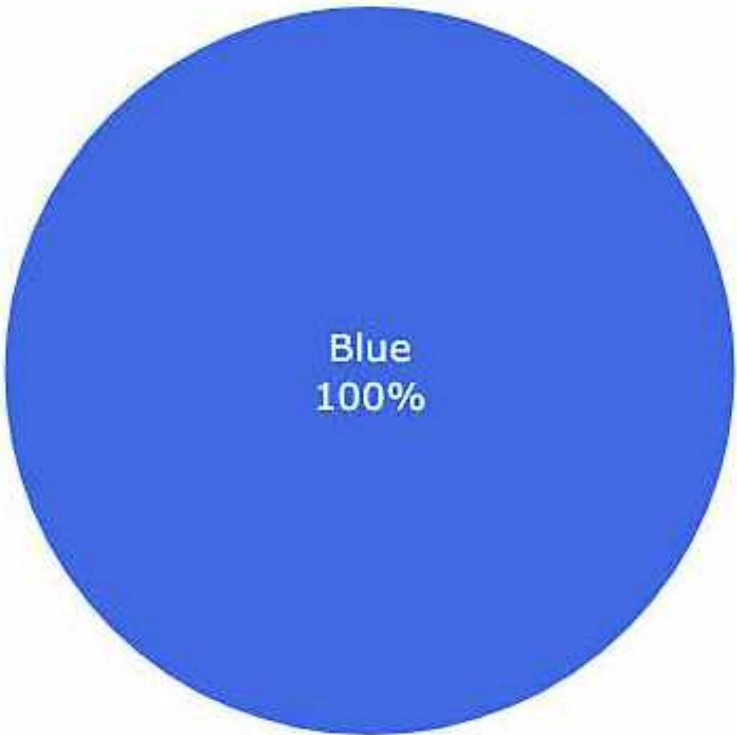
Dramatically higher spend index
Likely to see significant value in high investment, targeting more comprehensive/premium offerings

9 **Average number of participants taking courses within a period**
Likely see a direct correlation between the courses and their high-value business objectives

Deep engagement across most roles

Higher average engagement for almost every target role, indicating a comprehensive utilization of training resources. For instance, roles like A, D, and J have particularly high engagement compared to other clusters, highlighting specific areas where training is heavily integrated.

Distribution of Tier in Cluster 3



Highest in All Product Category (on avg)

As top spenders in every category, High-Value Investors represents a critical revenue stream for Microsoft. Maintaining high satisfaction and engagement with this group is essential for sustaining and potentially increasing revenue.

*The higher the spend index, the higher the revenue generated. Spend index range from 0 to 36 million.



High-Value Investors (Cluster 3)

Higher course count, High-value specialization, High spending

Business Implications: Roles like A, D, and J exhibit higher participation rates than others, indicating that Microsoft offerings are highly relevant and possibly critical to their operational or business functions. Tailored initiatives that specifically address the unique needs of these roles could be particularly effective in maximizing their activity and satisfaction with Microsoft's solutions.

Distribution of Each Role in High-Value Investors

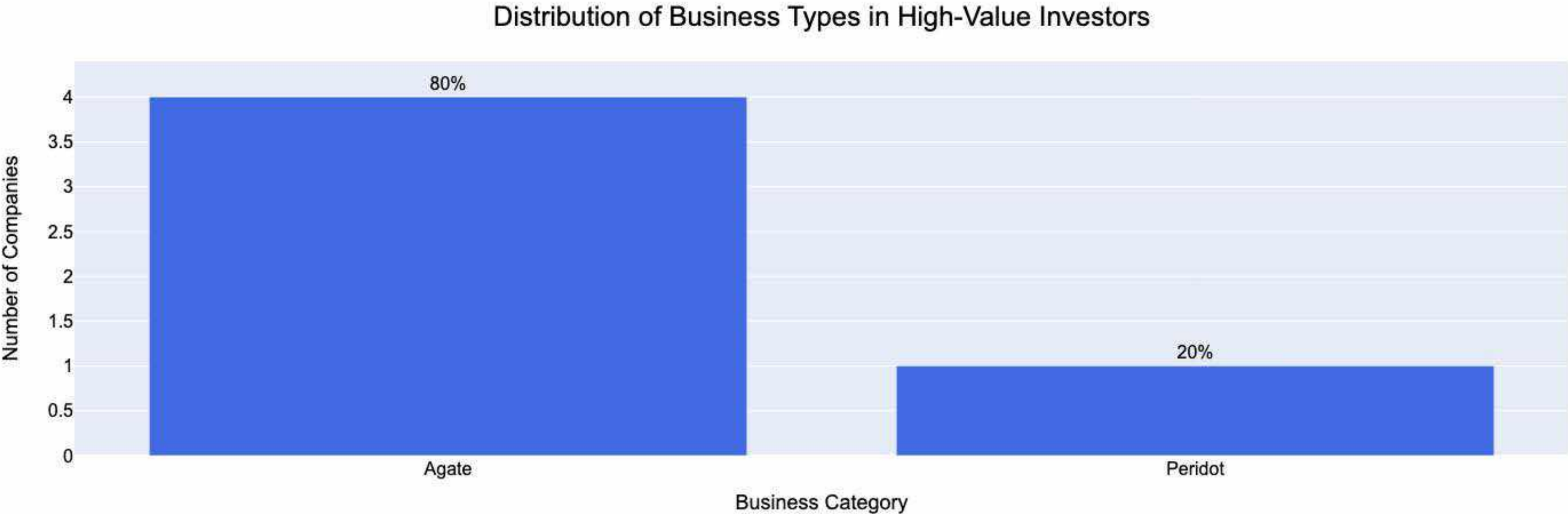




High-Value Investors (Cluster 3)

Higher course count, High-value specialization, High spending

Business Implications: Agate makes up a majority of this sector. Targeting this business type could yield higher revenue.





Diverse Leaders (Cluster 4)

High course count, Broad participation, Diversified spending

7,431,954

Spend Index*

Robust level of financial engagement
Reflecting a strong but diverse investment in the offerings, possibly due to a broader or more varied application of the services/products across their operations.

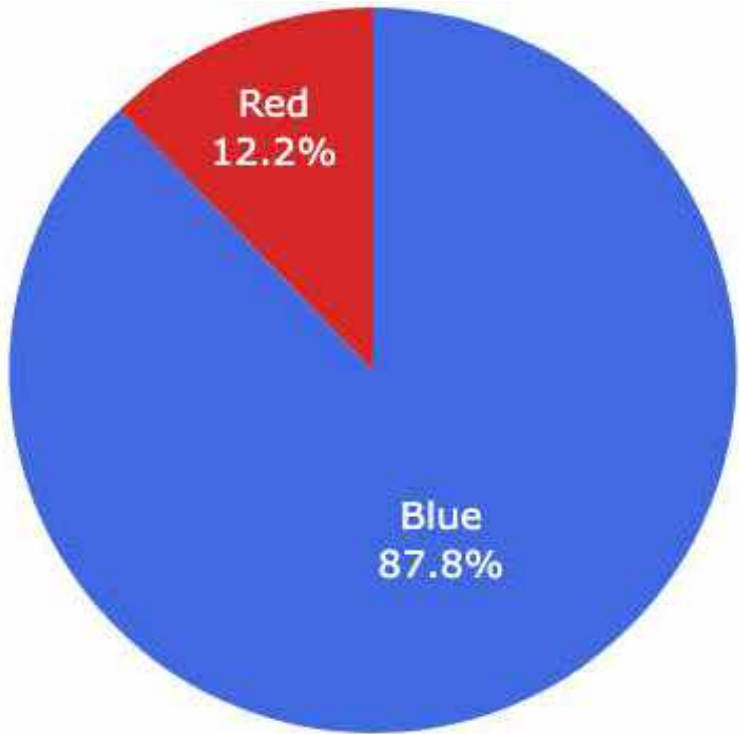
18.7

Average number of participants taking courses within a period
Engagement level is substantially higher than that of Exploratory Users, reflecting a strong commitment to utilizing a wide range of courses

Highest level of engagement across all roles

Unlike other clusters that might focus on specific roles or areas, Diverse Leaders' approach is more comprehensive, indicating a commitment to enhancing capabilities across the board.

Distribution of Tier in Cluster 4



High in All Product Category (on avg)

The substantial investment in all categories suggests that Diverse Leaders sees high value in Microsoft's offerings. Their balanced spending indicates a well-rounded utilization of resources, possibly pointing to a diverse and complex business structure that benefits from a wide range of products and services.

*The higher the spend index, the higher the revenue generated. Spend index range from 0 to 36 million.



Diverse Leaders (Cluster 4)

High course count, Broad participation, Diversified spending

Business Implications: Role A has the highest engagement, other roles like Roles C and M also show notable participation. Ensuring satisfaction and tailored support strategies could reinforce and capitalize on their existing high engagement.

Distribution of Each Role in Diverse Leaders

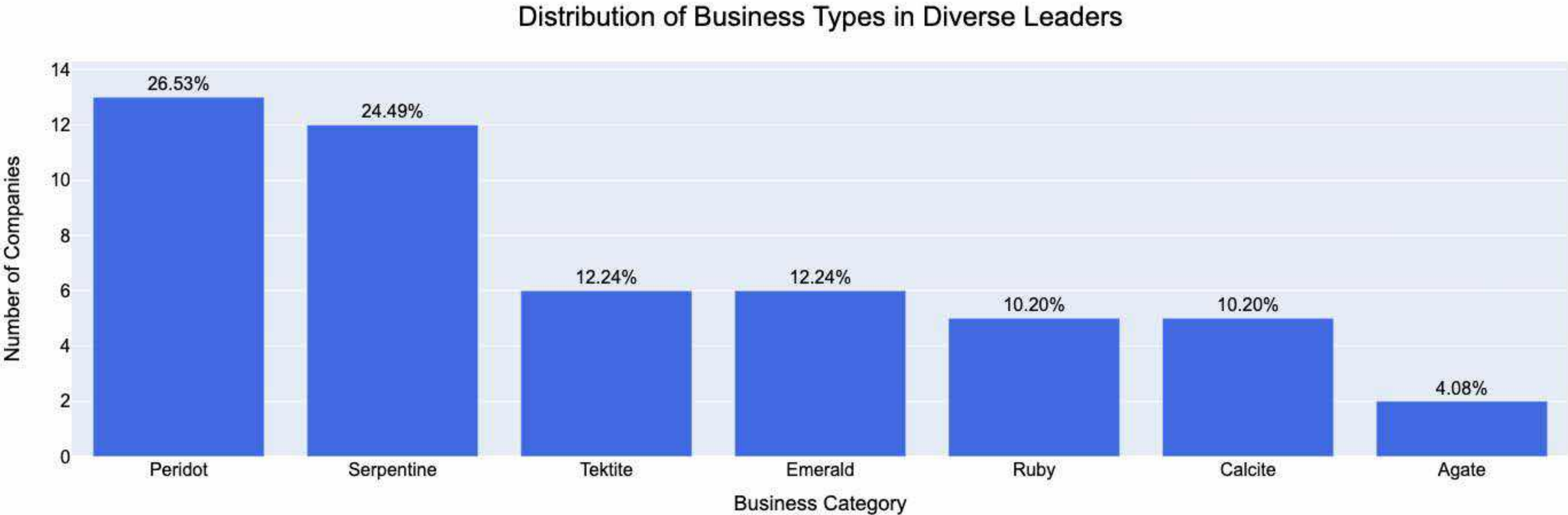




Diverse Leaders (Cluster 4)

High course count, Broad participation, Diversified spending

Business Implications: Peridot and Serpentine make up a majority of this segment type. Targeting this business type could help increase general participation and revenue.





Strategic Recommendations

Maintain relationship to drive revenue

High-Value Investors (Cluster 3)

Diverse Leaders (Cluster 4)

- ✓ **Retention-based Strategy**
E.g. Offer VIP-level coaching sessions, tailored more specifically to Role A, D & J customers from Agate businesses

- ✓ Offer highly customized personalization based on individual goals, expertise, and industry

- ✓ **Solicit constant feedback** to further gather insights into their experiences, preferences, and areas for improvement

- ✓ **Constantly update** courses based on changing interests and goals of both segments

- ✓ **Customized courses**, mostly for customers of Role A, C & M from Peridot and Serpentine businesses, but are also generalizable to most other businesses

- ✓ **Support Specialized Online Engagement**
E.g. Build online forum to allow customers of the same location, business type, or roles to receive ongoing support, resources, and opportunities through peer-to-peer collaboration



Final Conclusion

01

Do Enablement Programs Drive an Increase in Revenue?

We've showed a strong relationship between enablement participation and spending.

Key factors include:

- Role: Roles B, C, and E have influence on spend.
- Industry: Serpentine and Peridot spend more.

02

Which Targeted Subsets of Product Consumption are Impacted Differently?

4 Segments that differ based on spend and level of engagement.

Small customers: Build awareness of upskilling opportunities.

Medium customers: Develop relationship to increase engagement.

Large Customers: Deepen relationship to drive revenue.



Summary of Recommendations

We want to prove that: **The enablement (upskilling) program drives an increase in revenue.**

1. Get Multiple Roles Involved

Land and Expand:

- ✓ Penetrate via Tactical roles like Roles A & C
- ✓ Expand to Decision Maker Roles (B, C & E)

2. Tailor Course Offerings Based on Customer Size

Smaller Customers:

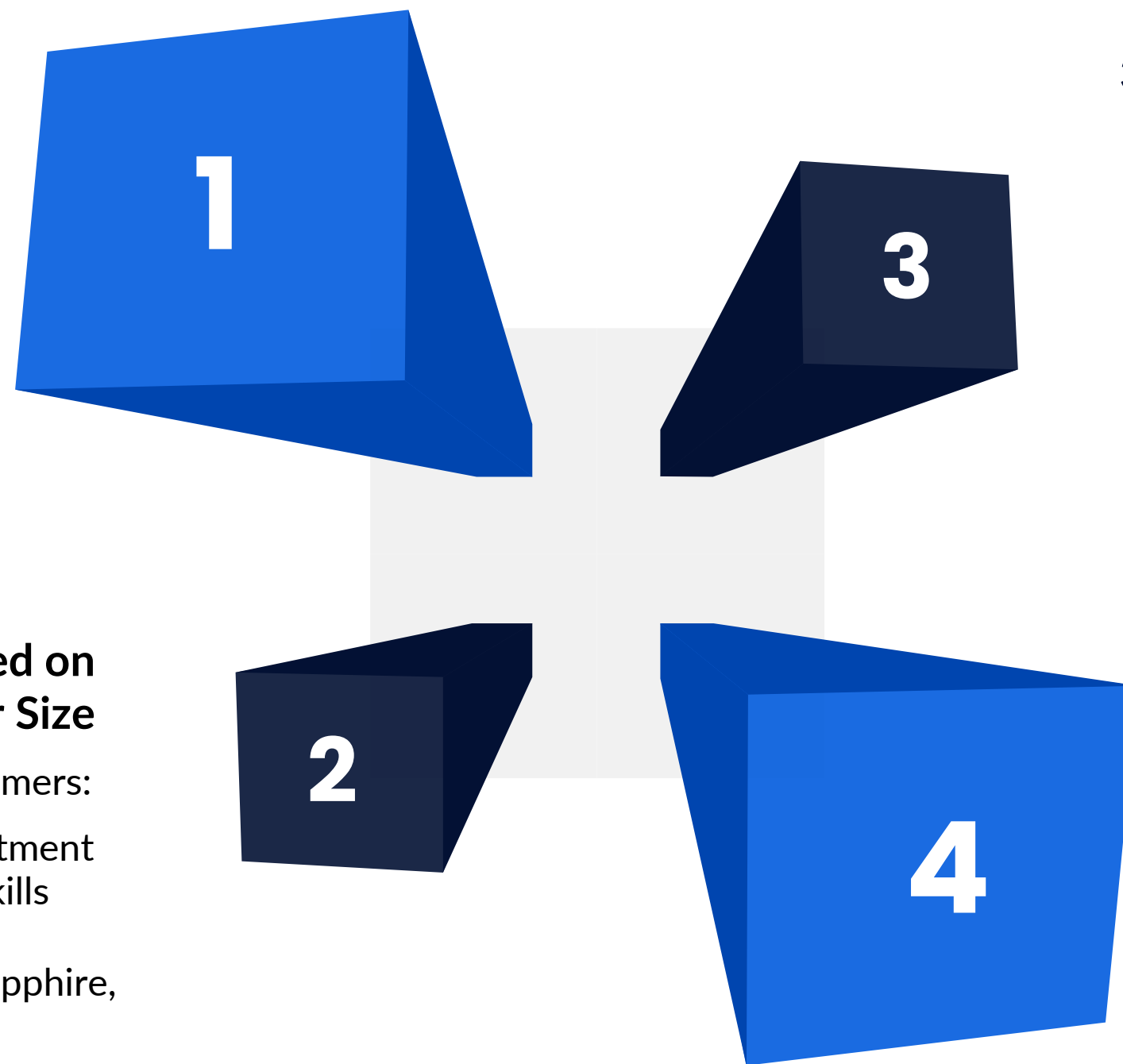
- ✓ Lean into shorter, low commitment courses focused on tactical skills
- ✓ Target content to Emerald, Sapphire, and Moonstone industries

3. Larger Customers

- ✓ Curate longer content around strategic, enterprise issues
- ✓ Service – develop training plans to funnel the right course to the right roles
- ✓ Re-engage course participants with timely topics such as Gen AI

4. Re-Evaluate Investment in Low Engagement Groups

- ✓ Consolidate Roles F and I with larger Roles





Thank You

Microsoft Learning & Revenue Data Points

Presented By

Andy Varness
Eason Hsieh
Farin Fukunaga
Jann Ang

Junoh Jung
Nicky Ong
Pranav Vasani
Queenie Chao





Data Dictionary (1)

anonclass tab – Microsoft Learning offers many classes for our people at our customer accounts to enroll. This data set provides details on the customer accounts, the classes taken, and the number of people per customer account that took the courses.

- **Customer** - The customer account number from 1 to 1699.
- **Control** – Flag letting you know if the account is actively managed by our sales teams. 1 for Yes. 0 for No.
- **Tier** – Customer account Training Tier (Blue, Red, White, NA).
- **Course** – The Course ID (1000 to 3576) for the course being taken by the customer account employees. Course IDs are NOT sequential. The relationship between courses is captured by the Target role, i.e. related courses are offered to the same role, and additional context is provided by the Course Group field.
- **Time** – The month that the courses were offered. Time is sequential A, B, C, D, E, F, G, H.
- **People Goal** – Potential Class Size. Example: The class is designed to allow 25 people to take the course.
- **Course Group** – The difficulty level (General, Basic, Advanced) of the course.
- **Target** – The expected type of employee from our customer that we think would benefit for the class. IE Data Scientist, Engineer, Accountant, etc. (Given values: Role A to Role F).
- **Customer Type** – The size and general focus of the customer. Classified as the different categories of animals. Are they big, small, medium sized, etc.
- **People** – The number of participants that took the course.



Data Dictionary (2)

anonspend tab - MSFT generates a large amount of its revenue through sales of cloud revenue. This data set provides monthly revenue totals for the customer accounts participating in taking the Learning Courses. Microsoft Team cannot show actual revenue numbers per the accounts. However, they can provide an alternative representation of revenue. Revenue per month is defined using a basic Index.

- **Customer** – The customer account number from 1 to 1691. Matches Customer from the class data set.
- **Time** – The month that the courses were offered. Time is sequential A, B, C, D, E, F. Matches Customer from the class data set.
- **Location** – The geographic area where the customer account is located.
- **Business** – The Industry that the business primarily operates.
- **Spend Group** – Revenue generated based on the general business line of products sold to the customer. (Given categories: Fish, Fruits, Grains, Meat)
- **Spend Index** – Distribution bucket of monthly revenue amount per customer/general business line in the month. There are 10 distribution buckets based on dollar size of revenue. (Given values: 1, 3, 5, 6, 7, 8, 10)
- **T Shirt Size** – Descriptive term (Micro, Petite, Medium, Junior, Large, Beefy, Supersized) to help size the dollar amounts being received. Terms are relative to the dollar amounts in the study.

Appendix

XGBoost Model

Result	
Adjusted R ²	0.58
RMSE	687016.04

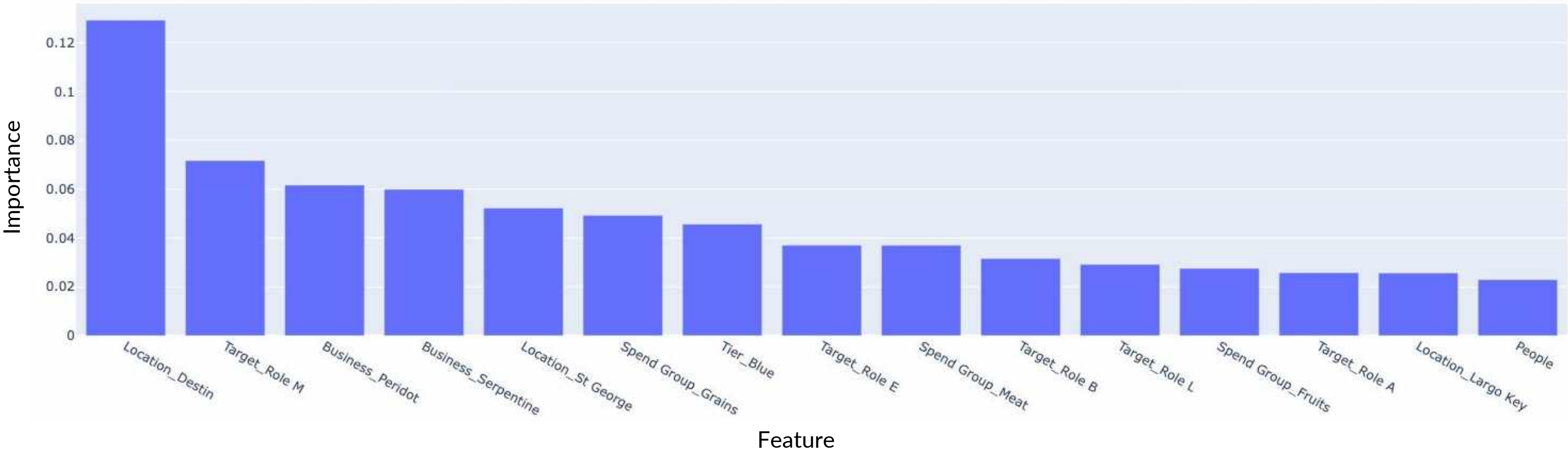
GridSearch CV Best Parameters	
Learning Rate	0.01
Maximum Tree Depth	10
No. Boosting Rounds	200
Fraction of observations to be random samples for each tree	0.8
Fraction of columns to be random samples for each tree	0.6



Appendix

XGBoost Model

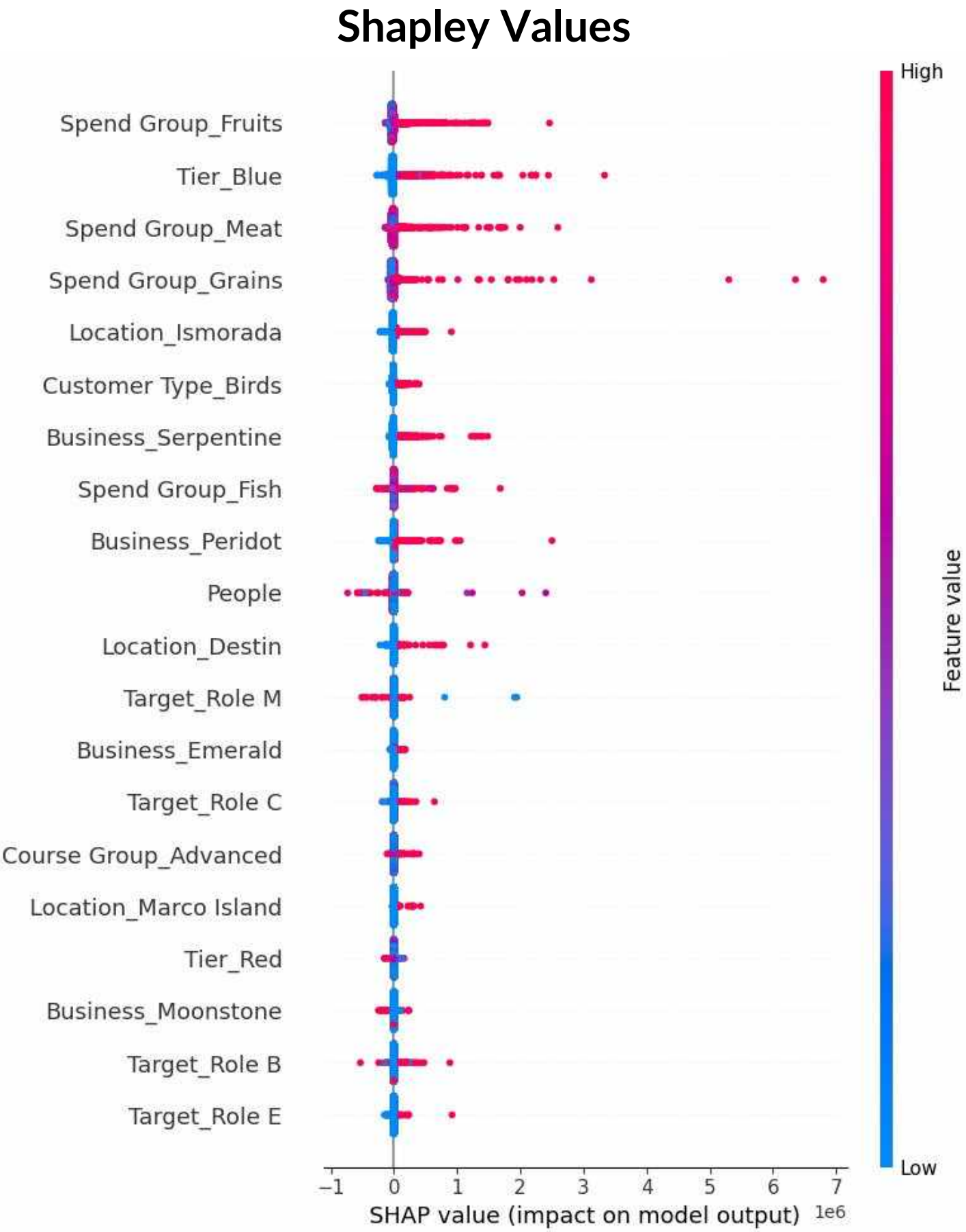
Top 15 Feature Importance





Appendix

XGBoost Model





Appendix

Blue Training Tier

Business Implication: The data clearly illustrates a significant jump in revenue when the number of accounts in the Blue Training Tier surpasses 38. This suggests that investing in increasing the number of trained accounts within this tier could lead to substantial increases in revenue, emphasizing the value of targeted training expansion within higher engagement tiers.

Impact of Blue Training Tier Accounts on Revenue



136.86%



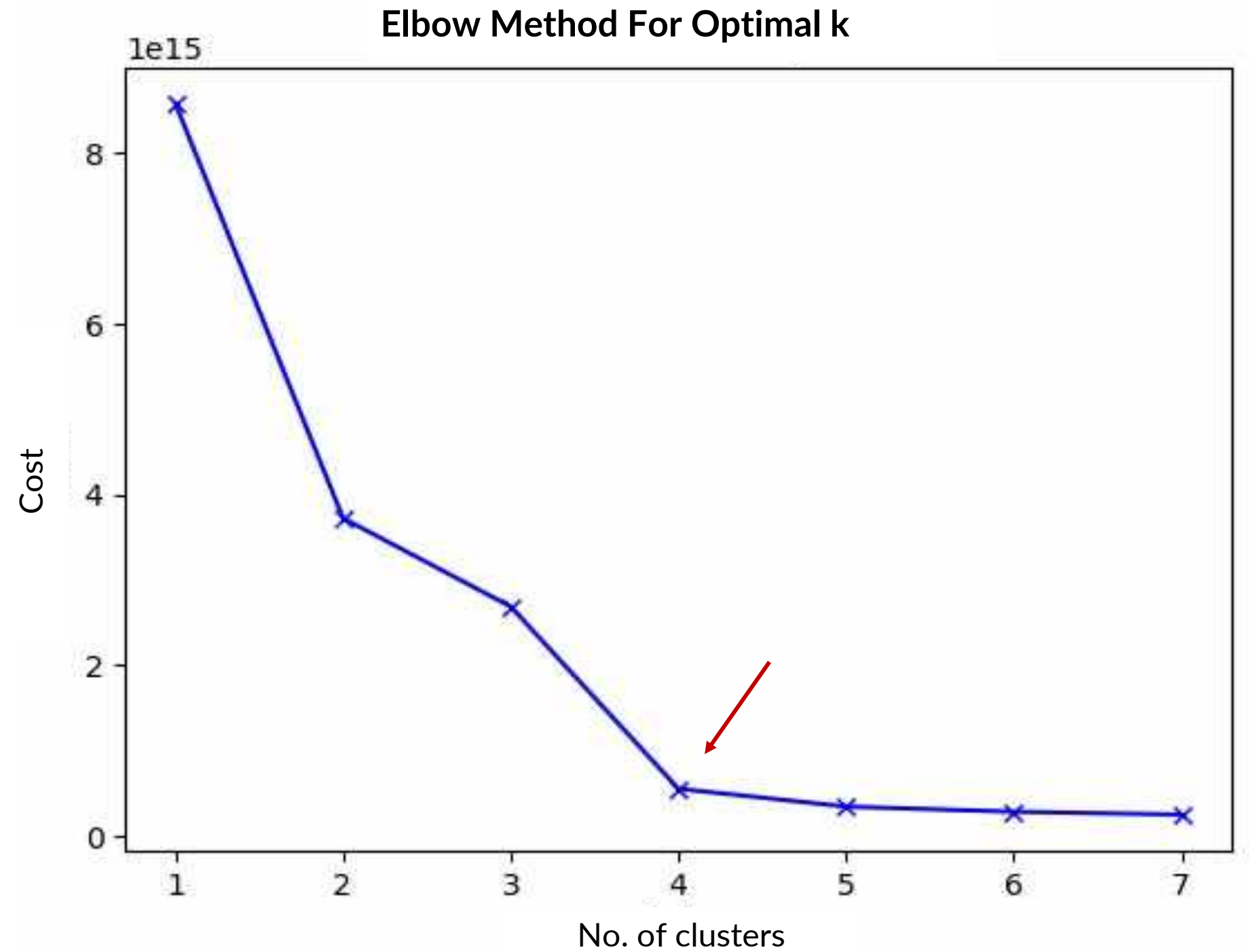
Sharp increase in monthly revenue as the number of Blue Training Tier accounts exceeds 38



Appendix

K-Prototypes

- ✓ We choose 4 clusters for k-prototypes because the elbow plot shows a significant reduction in cost up to 4 clusters, indicating optimal clustering at this point.





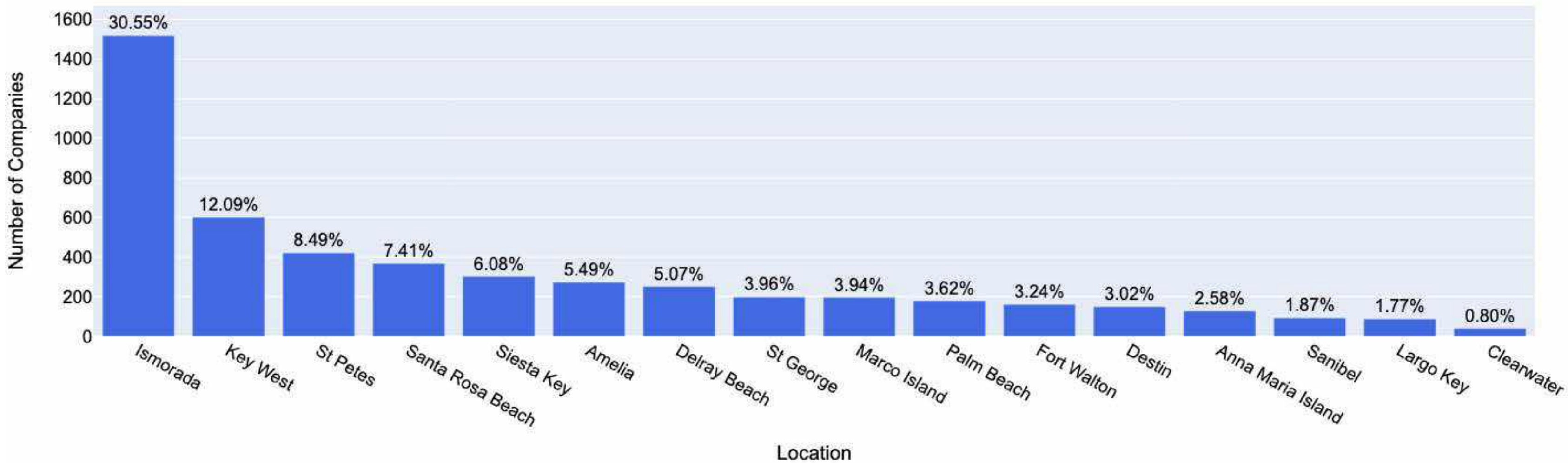
Appendix

Exploratory Users (Cluster 1)

Low engagement, Lowest revenue generated

Business Implications: Ismorada, Key West, and St. Pete are the top locations for Exploratory Users. The geographic concentration might reflect regional market characteristics or the success of localized marketing strategies. Enhanced local marketing efforts, regional partnerships, or community-focused events in these top locations could drive deeper engagement and higher spend.

Distribution of Location in Exploratory Users





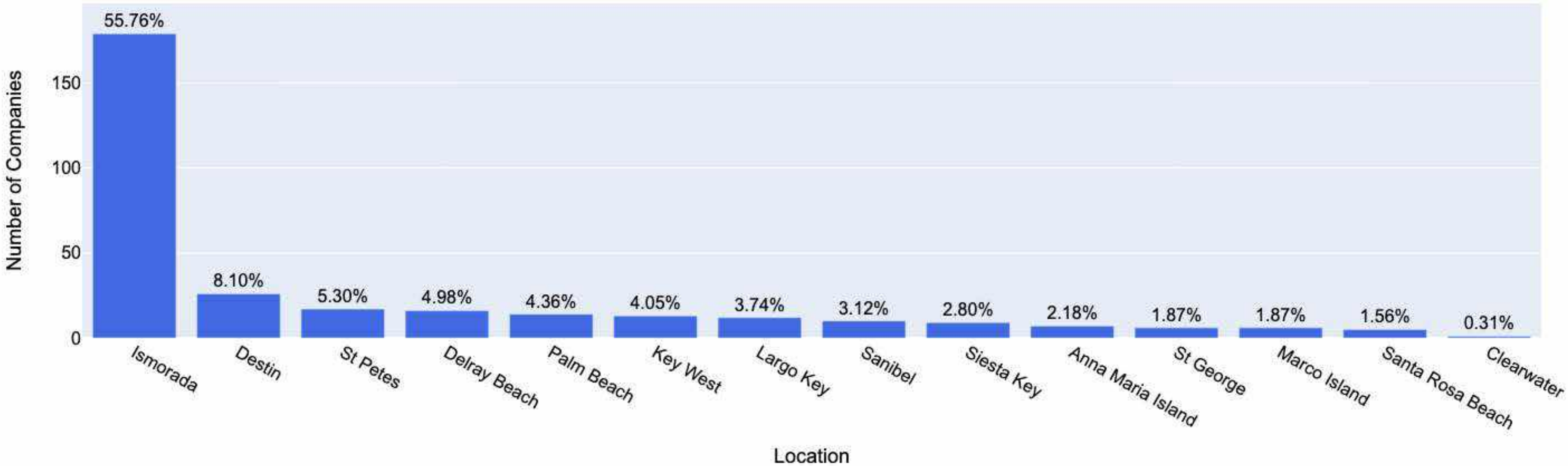
Appendix

Moderate Contributors (Cluster 2)

Moderate course count, Balanced participation, Diverse spending

Business Implications: The Ismorada shows the highest number of companies engaged. Looking at geographic area characteristics and applying those strategies to other locations will increase the participation.

Distribution of Location in Moderate Contributors





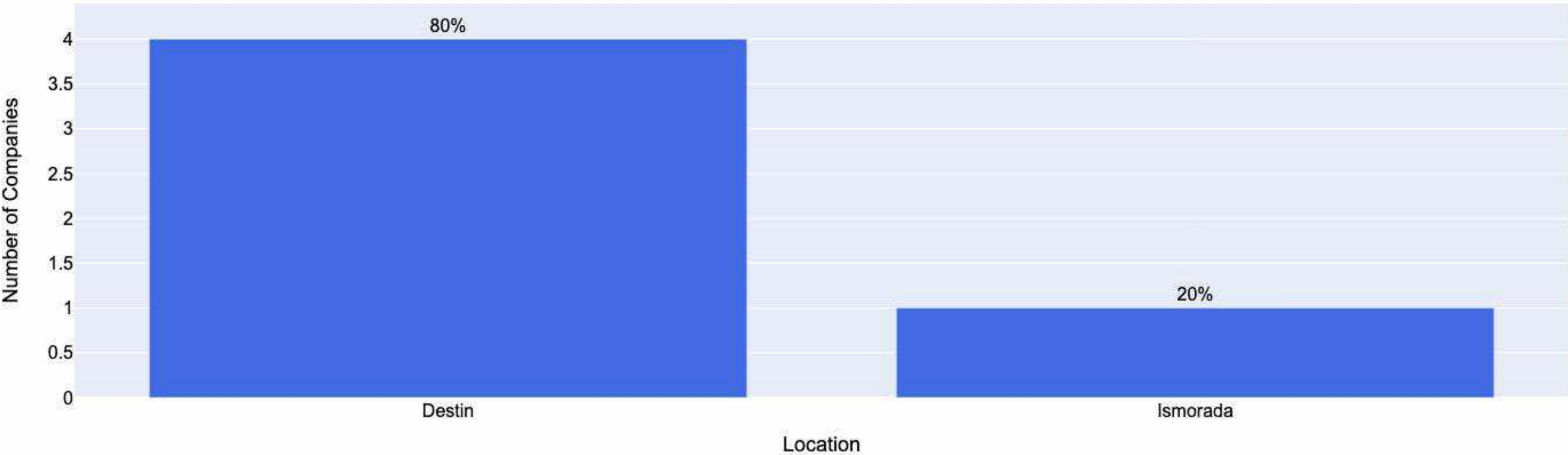
Appendix

High-Value Investors (Cluster 3)

Higher course count, High-value specialization, High spending

Business Implications: Most of the customers of this segment are in Destin. Geotargeting this area could expand revenue generation.

Distribution of Location in High-Value Investors





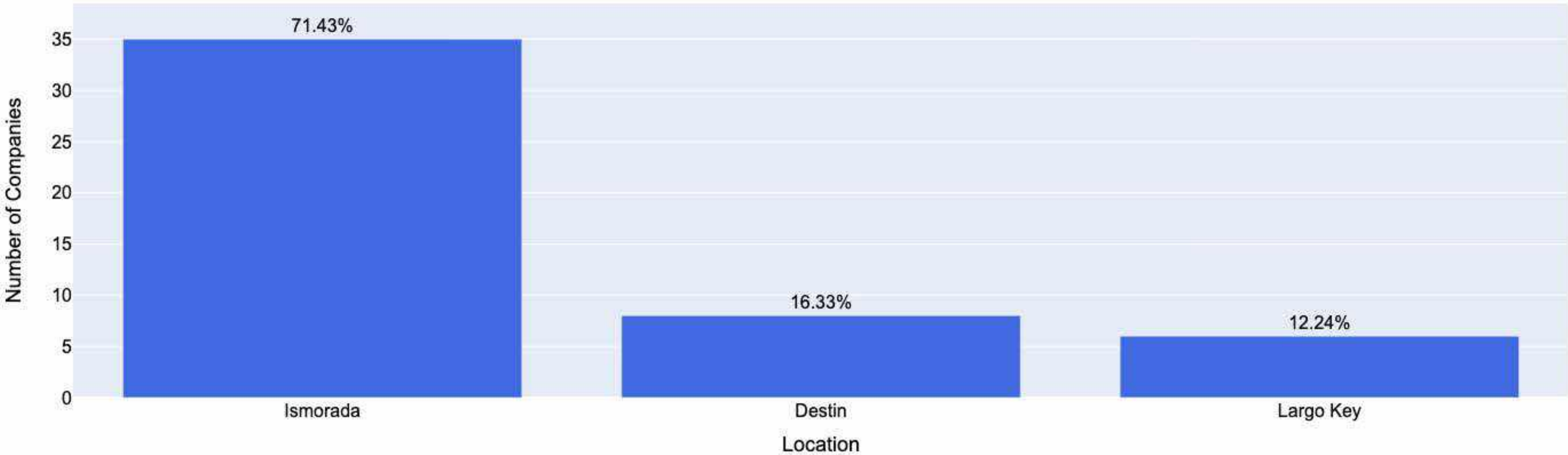
Appendix

Diverse Leaders (Cluster 4)

High course count, Broad participation, Diversified spending

Business Implications: Most of the customers in this segment are in Ismorada. Targeting this area could help expand revenue and participation.

Distribution of Location in Diverse Leaders



Appendix

Percentage of customers taking over 15 courses

Customers with over 15 courses in each cluster

