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IT 420: Business Intelligence

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Project 10: Predictive Insights Dashboard – Memo

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### **Predictive Insights Executive Memo**

I chose clustering for products because it would give me a way to show patterns of product sales, which gives executives information on what products to focus on in specific strategic ways. I chose classifications for customers so executives could see the amount of customers in each classification. In our example the classifications are at-risk and steady customers because we do not have high-value customers according to the threshold we set. Instead of altering the threshold I left it so executives could decide whether to adjust it or not because with the way the data-set is logged there are no high-value customers, so it becomes an executive decision to change those segments.

Our product clusters clearly show groups of products with their margin and volume statuses. Low-margin low-volume shows lower profitability and lower sales activity which is lower strategic priority. Moderate-margin mid-volume shows solid performers with consistent demand and healthy margin that are reliable revenue drivers. Steady-performers are stable products with predictable sales that support standard marketing and inventory planning. The strongest cluster is steady-performers because they form a strong foundation for the company. Moderate-margin mid-volume has a lot of room for growth. The cluster that signals potential risk is low-margin low-volume because those products are not making a lot and not moving a lot, and there is only one product in that cluster which is a positive thing.

With steady customers the company would focus on retention. With at-risk customers executives would target them, and our executive insight summary recommends increasing focus on steady customers to protect reliable revenue and reviewing at-risk customers for reengagement opportunities such as discount email outreach or representative follow-up. Executives can also evaluate whether the high-value threshold should be reset or whether the business needs premium products or customer tiers. When I classified customers I saw that at-risk was a lot higher than steady which I think is normal. It is important that no customers met the high-value threshold because that means the threshold is either irrational and needs revised or something in the marketing strategy needs changed to get people into that tier.

Executives should show appreciation to steady customers, which includes customer appreciation and incentives that encourage them to continue purchasing. An example would be a store that offers rewards when you spend a certain amount which can be used for discounts. At-risk customers need incentives to come in so they can use the products and services and possibly become steady customers once they see reliability and consistency within the company. Executives should consider the high-value threshold and decide whether it is not attainable or if there needs to be a marketing change to help customers reach that level. It is also possible that the threshold is not achievable within this type of business.

This predictive dashboard helps executives make better decisions because they can see at a glance the product clusters according to volume and product profit margin. Fortunately in the product clusters page the low-margin low-volume cluster has just one product which is good. Moderate-margin mid-volume has several products scattered which shows movement and potential. Steady-performers are in the middle with a solid amount. For the product classification page executives can quickly see the amount of at-risk and steady customer segments to get an idea of how products are moving and what kind of customer is purchasing the products. This high-level view is helpful because clustering and classification together make decision-making more specific and clearer on a multi-page dashboard.