SLF Business Performance Analysis

Executive Summary

As a small wholesale grocery firm with 20 employees and 10 suppliers, SLF performs reasonably well within their niche in the market. SLF sources a wide range of products from 10 suppliers, and each product has a single supplier. SLF's low headcount and flat organizational structure enables them to operate efficiently, produce healthy profit margins, and deliver products to customers quickly. As with any business, there are also areas of improvement that SLF can focus on in the future. SLF has seen declining sales over the past few months, and we hope to put forth recommendations that will combat these sales issues moving forward.

This report is based on an in depth analysis of key business data collected throughout 2025 year to date. Our principal objectives are to 1) highlight trends across various areas of SLF's business based on detailed data collection, 2) identify any changes that SLF should make to their product line, and 3) determine changes needed to suppliers.

First, we will discuss the performance of SLF products, focusing on sales volume and revenue performance. Then we will review SLF's customers to better understand order patterns across geography. Next, we will analyze seasonal patterns and revenue trends to understand when SLF performs the best. After this, we will transition into a discussion of suppliers, as SLF's relationship with its suppliers is key to its success. We will review employee performance as well. Finally, we will close by issuing strategic

recommendations on product portfolio optimization, customer and supplier relationship management, and operational improvements.

Product Analysis

In this section, we will review sales volume and revenue data and also review our inventory management strategy. Here, we focus on the following four questions:

1. What products are sold most often?
2. What is the total revenue for the top selling products?
3. Which products have the highest profit margin?
4. Which products are currently below their reorder threshold?

SLF's top selling product is organic bananas, with 468 units sold. Bananas are closely followed by whole wheat bread, with 25 units. Items 3 through 5 are, in order: avocados (22 units), premium olive oil (21 units), and organic milk (19 units).

As the product with the most units sold, we reviewed the total revenue for organic bananas. One unit of bananas is equal to a 40 pound case. With 468 units sold, the total revenue for bananas is $10,286.64.

The product with the highest profit margin is almond flour, at 54.54%. Himalayan sea salt, dark chocolate, and coconut oil all have margins of 53%. Organic quinoa has a profit margin of 52.5%. Despite their high sales volume, discussed above, bananas

have a low profit margin (25%) and therefore do not contribute as much to SLF's profit as other products.

Finally, we turn to SLF's inventory management. A few products are currently below their reorder threshold: jasmine rice, coconut oil, dark chocolate, almond flour, and Himalayan sea salt.

Based on this product performance data alone, we can recommend that SLF focus more on high margin specialty products rather than low margin commodities.

Customer Analysis

In this section, we review a comprehensive customer segmentation and payment behavior analysis. SLF currently has 250 customers, all located within the United States, some of which purchase from SLF more frequently than others. As a small grocer, it is important to SLF's success to maintain relationships with its most strategic customers. Here, we focus on the following questions:

1. Are there differences between customers in payment delay times?
2. What is the average customer order value and payment delay overall?
3. Are there differences in customer payment delays by state?
4. Which customer state has the highest number of orders?
5. Which customers generate the most total revenue?

First, we sought to understand key differences between customers in payment delays. Among enterprise customers, we saw medium payment delays. Small retailers had the greatest payment delays, while individual customers paid most quickly. SLF's fastest paying customer during this time period was GreenMart Inc., which paid SLF in just 4 days on average. The slowest paying customer, on the other hand, was Quick Stop Markets, which took an average of 39 days to pay SLF for its purchases.

Next, we dove into key order value and payment delay data. The average order value across all customers is $10,271.79. The average payment delay is 17.39 days. The medians are lower, indicating that our data is right skewed, with outliers on the high extreme.

In seeking to better understand SLF's customers, we reviewed regional differences. In regards to payment delays, Illinois is the slowest, at a 39 day average delay, followed by Texas (21.56 days), Florida (20.75 days), New York (19.2 days), and Louisiana (15 days). California is the state with the most orders, with 1,300. California is followed by Texas, Florida, New York, and then Louisiana. Of course, states with higher populations like these are more likely to purchase more from SLF. There are a few customer outliers that take longer to pay than others. In order, these are Quick Stop Markets, Family Market Chain, Neighborhood Foods, Budget Grocers LLC, and Corner Store Solutions.

Some of these regional differences are likely related. For instance, we see that our small retailers, or "mom and pops" take the longest to pay. These retailers are more

prevalent in more rural states like Texas and Florida, while enterprise customers are more likely to proliferate in urban based states like California.

Customers that generate the most total revenue for SLF are, in order, Olivia Miller (the CEO of a company based in California), at $80,000, William Brown (the CEO of a company based in Texas) at $70,000, Emily Davis (the CEO of a company based in Florida), an John Doe (the CEO of a company based in Texas), and Premium Foods Corp (based in California). Again, it makes intrinsic sense that customers in the most populous US states would generate the bulk of SLF's revenue, as they likely serve more customers and have more locations.

From this data, we understand that enterprise customers (with large customer bases themselves) and individual customers are the most strategic customers for SLF to prioritize, especially in populous states like California, Texas, Florida, and New York.

Revenue Analysis by Month

In this section, we answer just two questions:

1. How much revenue does SLF receive from customer orders each month?
2. which months generate the highest total revenue?

Monthly revenue has been variable the past few months. In January, SLF earned $165,050 in revenue, but this dropped to just $25,450 in February. We cannot identify a clear trend from the monthly data. We can see that 1) SLF had a spike in January but

has been faltering since then, and 2) SLF is inconsistent with industry trends that summer months are generally best for sales. As SLF continues to expand its market presence, we will need to further evaluate its monthly revenue to determine what measures SLF can take to augment sales in slower months and to return to its highest sales numbers from January.

Supplier Analysis

In this section, we review SLF's relationships with its 10 suppliers. Suppliers are located across the globe, and they are critical to the success of SLF's business, so it is crucial to understand their performance. Here, we answer the following questions:

1. Are there differences between suppliers in how long they take to fill orders?
2. Do supplier delivery times differ by supplier country?
3. Which suppliers consistently deliver late (more than 7 days)?
4. Which suppliers receive the highest total dollar value of orders?

First, we reviewed average order fulfillment times across all suppliers and found that there is a wide range. Quality Provisions (based in Toronto), Global Foods International (based in New York), and European Specialties (based in Berlin) each take just 4 days to fulfill orders on average. Spice Route Trading (based in India), on the other hand, takes 14 days to fulfill orders. Premium Produce (based in Argentina) takes 13.33. South American Goods (based in Brazil) takes 12.66 days. We can see that in

general, suppliers closer to the United States take less time to fulfill orders, which makes intrinsic sense, while suppliers far from US customers are slower.

Delivery times vary slightly by supplier country in line with the results for specific suppliers discussed above. North American based suppliers take just 4 days to fulfill orders, while countries in Asia and South America tend to take the longest to fulfill orders. These statistics can be used to set expectations with customers that products that originate further from the United States will take longer to arrive.

A few suppliers consistently deliver late. Asian Fresh Imports is the leader in this space, delivering 6 days late on average. South American Goods and Premium Product SA follow them. As late delivery affects SLF's relationship with its customers, it may be in SLF's best interest to cut ties with these suppliers and find alternative arrangements for sourcing their products.

European Specialties receives the highest total dollar value of orders, at $156,665.80. Global Foods International is next, at $125,480.60, and Asian Fresh Imports is third, at $100,702.10. Quality Provisions and South American Goods receive $76,320.40 and $19,234.50, respectively.

We see some recurring supplier names across the analysis. Quality Provisions, based in Canada, is both our most reliable deliverer and one of our top suppliers by order value, making them a valuable strategic partner. European Specialties from Germany also demonstrates strong performance in both reliable delivery and high total dollar value of orders. It is notable that while Asian Fresh Imports from Singapore receives a high total dollar value of orders, it is also identified as consistently delivering

late, averaging 6 days late. This suggests a clear opportunity for SLF to reevaluate its relationship with Asian Fresh Imports and other less reliable suppliers like South American Goods and Premium Produce SA, especially as late delivery impacts customer relationships.

Employee Performance Analysis

Finally, we turn to an analysis of SLF's small employee group. With just 20 employees, SLF already has quite a low headcount and is clearly able to operate efficiently. Here, we review the following questions:

1. Which employees placed the most supplier orders?
2. What is the average supplier order value placed by each employee?
3. What is the average time to fulfill customer orders?

Among SLF's purchasing officers, the top performers are, in order, Sarah Johnson (65 orders, with an average supplier order value of $10,994), Lisa Rodriguez (40 orders, with an average supplier order value of $13,879), Michael Chen (40 orders, with an average supplier order value of $13,529), David Kim (35 orders, with an average supplier order value of $12,426), and Jennifer Walsh (35 orders, with an average supplier order value of $9,017). The average fulfillment time by employees is 1.87 days.

Strategic Recommendations

Based on the extensive data collected as part of this project, and the subsequent analysis in the report above, we can now make a few key recommendations to SLF to improve their business processes.

1. Focus on high margin products

Almond flour, Himalayan sea salt, and dark chocolate are SLF's top performers by product margin. SLF should expand their inventory in the high margin specialty product space.

2. Implement automated reorder alerts

Five products are currently below reorder thresholds, and a few are critically low. This inventory update process should be updated as much as possible.

3. Implement differentiated payment terms

SLF sees great variability in payment delay. SLF could create a three tiered approach to give better terms to more reliable payers.

4. Diversify high risk suppliers

Some critical products are sourced from suppliers with high late delivery rates. SLF should have backup suppliers for these products.

5. Negotiate volume discounts with top performing suppliers

Some suppliers are extremely reliable and have the potential for high order volume. SLF can negotiate discounts with these suppliers for larger product volumes.

Appendix

Question 1:
What products are sold most often?

```
SELECT
  customerorderitem.prodid,
  product.prodname,
  SUM(customerorderitem.quantity)
FROM customerorderitem
JOIN product ON customerorderitem.prodid = product.prodid
GROUP BY
  customerorderitem.prodid,
  product.prodname
ORDER BY
  SUM(customerorderitem.quantity) DESC
LIMIT 5;
```

	prodid character (5)	prodname character varying (100)	sum bigint
1	P0001	organic bananas	468
2	P0002	whole wheat bread	25
3	P0005	avocados	22
4	P0006	premium olive oil	21
5	P0004	organic milk	19

Question 2:
What is the total revenue for the top selling products?

```
SELECT
  customerorderitem.prodid,
  product.prodname,
  SUM(customerorderitem.quantity * product.prodlistprice)
FROM customerorderitem
JOIN product ON customerorderitem.prodid = product.prodid
GROUP BY
  customerorderitem.prodid,
  product.prodname
```

```
ORDER BY
  SUM(customerorderitem.quantity * product.prodlistprice) DESC
LIMIT 5;
```

	prodid character (5)	prodname character varying (100)	sum numeric
1	P0001	organic bananas	10286.64
2	P0006	premium olive oil	519.75
3	P0004	organic milk	110.20
4	P0007	organic quinoa	108.00
5	P0002	whole wheat bread	87.50

Question 3:
Are there differences between customers in payment delay times?

```
SELECT
    Customer.CustFName || ' ' || Customer.CustLName AS CustomerName,
    AVG(CustomerOrder.CustOrderPaymentRecd - CustomerOrder.CustOrderRecdDate)
AS AveragePaymentDelayDays
FROM
    CustomerOrder
JOIN
    Customer ON CustomerOrder.CustID = Customer.CustID
GROUP BY
    CustomerName
ORDER BY
    AveragePaymentDelayDays DESC;
```

	customername text	averagepaymentdelaydays numeric
1	Quick Stop Markets	39.0000000000000000
2	Family Market Chain	38.0000000000000000
3	Neighborhood Foods	38.0000000000000000
4	Budget Grocers LLC	36.0000000000000000

Question 4:
Are there differences between suppliers in how long they take to fill orders?

```
SELECT
  supplierorder.supplierid,
  supplier.suppliername,
  AVG(supplierorder.suporderrecddate - supplierorder.supordersenddate)
FROM supplierorder
JOIN supplier ON supplierorder.supplierid = supplier.supplierid
GROUP BY
  supplierorder.supplierid,
  supplier.suppliername
ORDER BY
  AVG(supplierorder.suporderrecddate - supplierorder.supordersenddate) DESC;
```

	supplierid character (5)	suppliername character varying (100)	avg numeric
1	S0006	Spice Route Trading	14.0000000000000000
2	S0003	Premium Produce SA	13.3333333333333333
3	S0002	South American Goods	12.6666666666666667
4	S0007	European Gourmet	12.0000000000000000
5	S0004	Exotic Imports Ltd	10.5000000000000000

Question 5:
Do supplier delivery times differ by supplier country?

```
SELECT
    Supplier.SupplierState,
    AVG(SupplierOrder.SupOrderRecdDate - SupplierOrder.SupOrderSendDate) AS
AverageFulfillmentTimeDays
FROM
    SupplierOrder
```

```
JOIN
   Supplier ON SupplierOrder.SupplierID = Supplier.SupplierID
GROUP BY
   Supplier.SupplierState
ORDER BY
   AverageFulfillmentTimeDays DESC;
```

	supplierstate character (2)	averagefulfillmenttimedays numeric
1	India	14.0000000000000000
2	Argentina	13.3333333333333333
3	France	12.0000000000000000
4	Brazil	11.4000000000000000
5	Morocco	10.5000000000000000

Question 6:
Which products have the highest profit margin?

```
SELECT
   Product.ProdID,
   Product.ProdName,
   ((Product.ProdListPrice - Product.ProdCostPrice) / Product.ProdListPrice) * 100 AS
ProfitMarginPercentage
FROM
   Product
ORDER BY
   ProfitMarginPercentage DESC;
```

	prodid [PK] character (5)	prodname character varying (100)	profitmarginpercentage numeric
1	P0014	almond flour	54.54545454545454545500
2	P0015	Himalayan sea salt	53.33333333333333333300
3	P0013	dark chocolate	53.33333333333333333300
4	P0012	coconut oil	53.33333333333333333300
5	P0007	organic quinoa	52.50000000000000000000

Question 7:
Which products are currently below their reorder threshold?

```
SELECT
  prodid,
  prodname,
  prodonhand,
  prodreorder
FROM product
WHERE
  prodonhand < prodreorder
ORDER BY
  prodname;
```

	prodid [PK] character (5)	prodname character varying (100)	prodonhand integer	prodreorder integer
1	P0015	Himalayan sea salt	8	10
2	P0014	almond flour	12	15
3	P0012	coconut oil	10	15
4	P0013	dark chocolate	18	20
5	P0011	jasmine rice	15	20

Question 8:
What is the average customer order value and payment delay overall?

```
SELECT
  AVG(custorderpayment),
  AVG(custorderpaymentrecd - custorderrecddate)
FROM customerorder;
```

	averageordervalue numeric	averagepaymentdelaydays numeric
1	10271.791304347826	17.3913043478260870

Question 9:
Are there differences in customer payment delays by state?

```
SELECT
  customer.coststate,
  AVG(customerorder.custorderpaymentrecd - customerorder.custorderrecddate)
FROM customerorder
JOIN customer ON customerorder.custid = customer.custid
GROUP BY
  customer.coststate
ORDER BY
  AVG(customerorder.custorderpaymentrecd - customerorder.custorderrecddate) DESC;
```

	coststate character (2)	avg numeric
1	IL	39.0000000000000000
2	TX	21.5555555555555556
3	FL	20.7500000000000000
4	NY	19.2000000000000000
5	LA	15.0000000000000000

Question 10:
How much revenue does SLF receive from customer orders each month?

```
SELECT
    to_char(CustomerOrder.CustOrderRecdDate, 'YYYY-MM') AS Month,
    SUM(CustomerOrder.CustOrderPayment) AS MonthlyRevenue
FROM
    CustomerOrder
GROUP BY
```

```
    to_char(CustomerOrder.CustOrderRecdDate, 'YYYY-MM')
ORDER BY
    Month;
```

	month text	monthlyrevenue numeric
1	2025-01	165050.40
2	2025-02	25450.00
3	2025-03	20900.00
4	2025-04	26580.00
5	2025-05	22570.00

Question 11:
Which months generate the highest total revenue?

```
SELECT
    to_char(CustomerOrder.CustOrderRecdDate, 'YYYY-MM') AS Month,
    SUM(CustomerOrder.CustOrderPayment) AS TotalRevenue
FROM
    CustomerOrder
GROUP BY
    Month
ORDER BY
    TotalRevenue DESC;
```

	month text	totalrevenue numeric
1	2025-06	211952.00
2	2025-01	165050.40
3	2025-04	26580.00
4	2025-02	25450.00
5	2025-05	22570.00

Question 12:
Which suppliers consistently deliver late (more than 7 days)?

```
SELECT
  supplierorder.supplierid,
  supplier.suppliername,
  COUNT(*)
FROM supplierorder
JOIN supplier ON supplierorder.supplierid = supplier.supplierid
WHERE
  supplierorder.suporderrecddate - supplierorder.supordersenddate > 7
GROUP BY
  supplierorder.supplierid,
  supplier.suppliername
ORDER BY
  COUNT(*) DESC;
```

	supplierid character (5)	suppliername character varying (100)	count bigint
1	S0001	Asian Fresh Imports	6
2	S0002	South American Goods	2
3	S0003	Premium Produce SA	2
4	S0005	Tropical Goods Co	1
5	S0007	European Gourmet	1

Question 13:
Which suppliers receive the highest total dollar value of orders?

```
SELECT
  supplierorder.supplierid,
  supplier.suppliername,
  SUM(supplierorder.suporderamount)
FROM supplierorder
JOIN supplier ON supplierorder.supplierid = supplier.supplierid
```

```
GROUP BY
  supplierorder.supplierid,
  supplier.suppliername
ORDER BY
  SUM(supplierorder.suporderamount) DESC;
```

	supplierid character (5)	suppliername character varying (100)	sum numeric
1	S0009	European Specialties	156665.80
2	S0008	Global Foods International	125480.60
3	S0001	Asian Fresh Imports	100702.10
4	S0010	Quality Provisions	76320.40
5	S0002	South American Goods	19234.50

Question 14:
Which employees placed the most supplier orders?

```
SELECT
    supplierorder.empid,
    employee.empfname || ' ' || employee.emplname AS EmployeeName,
    COUNT(supplierorder.suporderid)
FROM
    supplierorder
JOIN
    employee ON supplierorder.empid = employee.empid
GROUP BY
    supplierorder.empid,
    employee.empfname || ' ' || employee.emplname
ORDER BY
    COUNT(supplierorder.suporderid) DESC;
```

	empid character (5)	employeename text	numberofordersplaced bigint
1	E0001	Sarah Johnson	65
2	E0002	Michael Chen	40
3	E0003	Lisa Rodriguez	40
4	E0004	David Kim	35
5	E0005	Jennifer Walsh	35

Question 15:
What is the average supplier order value placed by each employee?

```
SELECT
    supplierorder.empid,
    employee.empfname || ' ' || employee.emplname AS EmployeeName,
    AVG(supplierorder.suporderamount) AS AverageSupplierOrderValue
FROM
    supplierorder
JOIN
    employee ON supplierorder.empid = employee.empid
GROUP BY
    supplierorder.empid,
    employee.empfname || ' ' || employee.emplname
ORDER BY
    AverageSupplierOrderValue DESC;
```

	empid character (5)	employeename text	averagesupplierordervalue numeric
1	E0003	Lisa Rodriguez	13879.312500000000
2	E0002	Michael Chen	13529.312500000000
3	E0004	David Kim	12426.771428571429
4	E0001	Sarah Johnson	10994.123076923077
5	E0005	Jennifer Walsh	9017.6571428571428571

Question 16:

What is the average time to fulfill customer orders (receipt to shipment)?

```
SELECT
  AVG(custordershipdate - custorderrecddate)
FROM customerorder;
```

	avg numeric
1	1.8695652173913043

Question 17:

Which customer state has the highest number of orders?

```
SELECT
  customer.custstate,
  COUNT(customerorder.custorderid)
FROM customerorder
JOIN customer ON customerorder.custid = customer.custid
GROUP BY
  customer.custstate
ORDER BY
  COUNT(customerorder.custorderid) DESC;
```

	custstate character (2)	numberoforders bigint
1	CA	1300
2	TX	900
3	FL	800
4	NY	500
5	LA	200

Question 18:
Which customers generate the most total revenue?

```
SELECT
    CustomerOrder.CustID,
    Customer.CustFName || ' ' || Customer.CustLName AS CustomerName,
    SUM(CustomerOrder.CustOrderPayment) AS TotalRevenue
FROM
    CustomerOrder
JOIN
    Customer ON CustomerOrder.CustID = Customer.CustID
GROUP BY
    CustomerOrder.CustID,
    CustomerName
ORDER BY
    TotalRevenue DESC;
```

	custid character (5)	customername text	totalrevenue numeric
1	C0015	Olivia Miller	80000.00
2	C0014	William Brown	70000.00
3	C0013	Emily Davis	60000.00
4	C0010	John Doe	57135.70
5	C0003	Premium Foods Corp	47285.60

Question 19:

Which products have declining sales trends over the past 3–6 months?

```
SELECT
  product.prodname,
  to_char(customerorder.custorderrecddate, 'YYYY-MM') AS Month,
  SUM(customerorderitem.quantity) AS UnitsSold
FROM customerorderitem
JOIN customerorder ON customerorderitem.custorderid = customerorder.custorderid
JOIN product ON customerorderitem.prodid = product.prodid
WHERE customerorder.custorderrecddate >= DATE '2025-01-01'
GROUP BY product.prodname, to_char(customerorder.custorderrecddate, 'YYYY-MM')
ORDER BY product.prodname, Month;
```

Question 20:

Which customers have not placed an order in the last 90 days?

```
SELECT
  customer.custid,
  customer.custfname || ' ' || customer.custlname AS CustomerName,
  MAX(customerorder.custorderrecddate) AS LastOrderDate
FROM customer
LEFT JOIN customerorder ON customer.custid = customerorder.custid
GROUP BY customer.custid, CustomerName
HAVING MAX(customerorder.custorderrecddate) < CURRENT_DATE - INTERVAL '90 days'
ORDER BY LastOrderDate;
```