# DEPARTMENT OF STATISTICS UNIVERSITY OF COLOMBO

## IS 3005 Statistics In Practice 1

## **Industry Group Report**

#### Group 06

s14357- Nuwanjalee W. A. M.

s14383- Weerasinghe H. S. H. A.

s14429- Fernando M. R. N.

s14379- Sri J. M. D. M. J.

s14487- Nimshani T. D. A.

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#### **Executive Summary**

Analytical reports are business reporting tools that use qualitative and quantitative data to analyze the performance of a business strategy or as support when a company needs to make important decisions. In here we were given a dataset which comprises of number of records of orders in a manufacturing and distribution company, their returns and other relevant tables. And we are required to analyze these data in order to identify business status and to provide with necessary suggestions to increase their profits by reducing losses.

Since the data was from a secondary data source and as there were many data sheets with numerous records, it was necessary to model our data into informative tables for the ease of further analyzing. Our group members actively participated in making this report successful by dividing the workload among us and helping each other. After preprocessing the required data, pivot tables were constructed, and graphs were drawn to identify key factors in our objectives. Then the final findings were recorded which are used to make important decisions in the company for better sales and profits in upcoming months and so on. Both Microsoft excel and SPSS software packages were used to complete our descriptive analysis.

Not all the companies perform similarly over time. There may be ups and downs, profits and losses. When considering the data given after a thorough analysis it was found that this manufacturing and distribution company too has certain ups and downs over the months from October to December. Factory orders have increased at the beginning but have slightly decreased to the end of the time period implying drawbacks in performance and business status. Numerous reasons may be behind this drawback but factory returns also have increased at the beginning and also have decreased over time. It is a plus point to a manufacturing company because it ensures that their products are of required quality and up-to date.

It was interesting to look for territories which brings highest number of sales to the business. Though there are many territories in the DimTerritory data sheet, only 12 of them have placed orders in those 3 months. Out of those 12 territories it was observed that Nugegoda~2 territory had the highest number of orders, which implies that the company profits are mainly centered at that territory as they have the highest order count. Other territories contributing highly for the increase in sales are Athurigiriya, Horana, Wellawatta, Kaluthara~1, Kottawa, Kaluthara~2 and Piliyandala.

To dig deep down in our analysis, we selected the three territories with highest number of orders and checked for product associations between the products sold in those territories and to identify any patterns between them. Nugegoda~2, Athurigiriya and Horana were the three territories with highest number of factory orders and through the heat maps drawn it was evident that within Nugegoda~2 territory there is a product association pattern of sales of water flasks and bulbs. So, within that territory sales of those 2 have a positive correlation. Even in Horana territory there is a higher positive correlation for deodorants and hair gel products and as well as sanitary napkins.

For a company to achieve higher profits not only they should have higher sales but also, they should have a driving workforce of employees who are dedicated for the upliftment of company performances. To identify employee behaviours, especially the behavior of sales representatives, their efficiency was measured considering the average difference of dates which they planned to visit a certain route and the date they actually visited. Salesrep key 124 had the lowest average difference of 5 days while salesrep key 127 had an average difference of about 8 days and salesrep key 122 had about 9 days. So, all the other sales representatives were delaying route visits even more than 10 days which may result in low sales in the company. Though they are provided with monthly targets if they are delaying their duties, it is something to be concerned of, as their efficiency directly impacts company overview and reputation.

Though there are many routes it was necessary to check for the routes which brings majority of sales to the company. Since analysing route profitability was hard with huge number of routes, top five routes with the highest profits were taken and they were routes with key numbers 0, 145, 249, 236 and 151 respectively. Name of Route key 0 was not defined but the second highest profits were from Nagoda~Dodangoda route and third from Horana~Bellapitiya route. It was also interesting to find which items from which brands were sold in these routes to gain those huge profits. So, after a nice analysis we found out that the brands of the items sold most are from brands EVA and Black knight. Which is obvious that the items sold mostly are of various types of sanitary napkins in EVA and Hair gels, perfumes, shaving creams and talc. It was also found that the least selling brands in those 5 routes are Cofeena, Yeheli, Free and Easy, Thermos, Kevilton, Colgate and Vatika.

So, by considering all these findings we can come into some conclusions like overall business performance has decreased slightly over the three months and it may not be because of a manufacturing issue but as these are from last three months of the year but if it is a performance issue, the company should take necessary steps to enhance quality production and so on. Nugegoda~2, Athurigirya and Horana were identified as the main centers of profit making so to achieve more and more profits from those territories it is recommended to allocate more goods with

higher sales in those territories as per demand and to promote and advertise most selling products in territories with less sales.

To increase employee efficiency, company can provide them with both targets and commissions, so they will complete the given targets within the given time which will increase company performances as well as company sales. Even when accounting route profitability, company can allocate more items to routes with higher sales than that of low sales to increase profits and as we also have identified the products that are selling mostly in those routes and their brands, company can increase manufacturing products of those brands which have higher selling rates and can reduce the manufacture of items of brands with very low sales to cut off losses which will cause by excessive production of non-selling items. Taking everything into account overall business was in a good condition during the given time period though there were slight deviations and suggestions and recommendations for the upliftment of the business which are going to be discussed later in this report.

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#### Introduction

#### Outline

In daily business, many different aspects and activities are constantly changing such as sales trends and volume, marketing performance metrics and warehouse operational shifts. All these little alterations in business activities are impacting the global well-being of the company. Whether we manage a big or small company, business reports must be incorporated to establish goals, track operations, and strategy, to get an in-depth view of the overall company state.

#### Business scenario

The Business scenario is based on manufacturing and distribution processes. Manufacturers work to assemble components and materials into a finished product. Distributors place bulk orders with the manufacturer and then sell far smaller quantities to either retail stores or end-users. Distribution is an important activity in the integrated supply-chain management of different products. Various people and entities are generally responsible for handling, storage and distribution of such products. In some cases, however, a person or entity is only involved in and is responsible for certain elements of the distribution process. In this scenario we are given with multiple number of excel data sheets which contains about 132116 records of Items from 28 brands which were distributed to the 12 territories within the 3 months October, November and December.

#### Business requirements

Business requirements are the means to fulfill the organization's objectives. They should be high-level, detail-oriented, and written from the client's perspective. There are many business requirements in manufacturing and distribution processes. In here we are expected to identify business problems if there are any and to provide necessary suggestions and solutions to those issues after a proper analysis. As a business, there may be many requirements. Here are some, to identify performances of sales representatives in order to increase their efficiency for better sales output and to provide recommendations and suggestions to reduce return orders and the steps that can be taken to increase the sales of the company in order to increase business profits.

#### Data

Data was in multiple excel sheets and we had to model our data to make it useful for our analysis to achieve our objectives. We preprocessed data according to the data preprocessing techniques. We cleaned our data set removing unnecessary records in some data sheets and we did data modelling to identify necessary tables with relevant variables properly modelled for proper joins using key variables. Though there are different types of variables in the data set we have only selected the most important variables which explains our objectives most when forming tables and to conduct our analysis. Microsoft Excel and SPSS software packages were used throughout the analysis and the methods and findings are explained in analysis section.

#### Objectives

- Analyzing overview business status and performance
- Identifying the distribution of orders with territory.
- Identifying product association patterns over a territory.
- Identifying behaviors of sales representatives.
- Analyzing route profitability.

#### **Analysis**

#### Analyzing Overview Business Status and Performance

#### Method

Here the dataset is considering sales in three months, October, November and December. To analyze overview business and performance, the total factory orders & returns for each month were taken as a percentage. First of all, instead of analyzing the free orders in the "LineType" columns of both "FactOrders" and "FactReturns" sheets in the dataset, only the "Order" was filtered because free orders or free returns cannot be taken for analysis. After that, the format of the "DateKey" variable in both of the above-mentioned sheets were converted from general into date using an Excel function to analyze overall orders in monthly wise. In here, the data in one record was considered as one order or one return. Pivot table of month and order count and pivot table of month and return count were obtained after getting the relevant month from DateKey. After that order count or return count were converted as a percentage in each month to get a good conclusion and the above bar charts were obtained.



Figure 1 Factory orders and returns by month

#### **Findings**

Increase in sales over time implies improvement of business status and if the sales have decreased it implies a downfall in performance. So, to check the overall business status and performance of this manufacturing and distribution company we analyzed factory orders and returns as mentioned above

and it was observed that there is an increment of 7.19% in number of orders from October to November but there is a slight decrement of 1.86% from November to December. This proves that overall business performance has reduced slightly. Similarly, we can observe that returns over the months have varied same as that of orders and decrement in return orders implies that the company's products are of good quality and up-to date.

#### Identifying Distribution of Orders with Territory

#### Method

To look at the orders that ordered by territory wise, the variables of "TerritoryKey" in the "FactOrders" sheet and "TerritoryName" in the "DimTerritory" sheet were linked and territory column was added into the "FactOrders" sheet renamed as "Territory Name". Then the pivot table between the territory and the percentages of orders was obtained as before. Bar chart of percentage of order versus territory was obtained to identify the distribution of orders with territory.

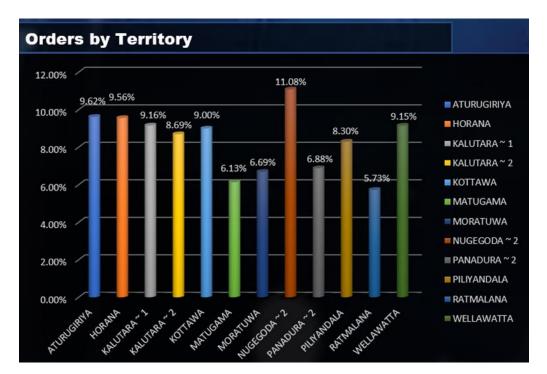


Figure 2 Orders by territories

#### **Findings**

Territories with higher number of orders will be identified as urbanized territories with more sales. So, the company can give priority for those territories and do sales campaigns in territories that have less sales to increase profits of the business. It was observed that highest percentage of orders which is 11.08% were ordered by Nugegoda~2 territory. Second highest percentage is 9.62% in Aturugiriya

territory. And least percentages of orders were ordered in Ratmalana, Mathugama, Moratuwa and Panadura territories.

#### Identifying Product Association Patterns Over a Territory

#### Method

Three territories that have the highest number of orders were selected from above 'Orders by Territory' graph to identify the product association patterns over the selected three territories. Because one territory has so many product items with different brands, it was difficult to draw a correlation heat map for a one territory. Therefore the "FactOrders" sheet was imported into the SPSS software and all product items were recoded into product categories. As an example, all hair gel related products were recoded into hair gel category and spray(cans), splash-on (plastic), splash-on (bottles), spray(bottles), wings(contour) were recoded into perfume category. After that, recoded column was named as 'item category'; territory name column and unit quantity column were added to the new Excel sheet and pivot table was obtained. Then correlation heat maps were obtained for three territories separately.



Figure 3 Product association in Nugegoda territory

	CREAMS	DEODORANT	DIAPER	HAIR GEL	HAIR OIL	MEDICINE	PERFUME	SANITARY NAPKINS	SOAP	TALC	TOOTHPASTE		
CREAMS	1.0000												
DEODORANT	-0.9045	1.0000											
DIAPER	0.1611	0.3333	1.0000										
HAIR GEL	-0.0507	0.9138	-0.0001	1.0000									
HAIR OIL	-0.0363	-0.5774	-0.0543	-0.0127	1.0000								
MEDICINE	-0.0107	-0.6804	0.0297	-0.0501	-0.0254	1.0000							
PERFUME	-0.0457	0.0361	-0.0317	-0.0112	-0.0171	-0.0053	1.0000					$\sim$	
SANITARY NAPKINS	-0.0432	0.5774	-0.0329	-0.0279	-0.0237	-0.0207	-0.0206	1.0000					
SOAP	0.0235	-0.5774	0.0519	-0.1690	0.0415	0.5274	0.0296	0.0278	1.0000				
TALC	0.0268	0.0000	0.0167	-0.0460	0.0940	0.0148	0.0473	-0.0600	0.1180	1.0000			
TOOTHPASTE	-0.0646	-0.1532	-0.2721	-0.0383	-0.1555	-0.0997	0.1298	-0.0874	-0.1847	-0.0848	1.0000		

Figure 5 Product association in Athurugiriya territory

	DEVED AIGE	POCALAC	DECODORANT	PHADED	FIXEV	MAID CEL	HAIR OW	ARCHIO ME	ANNUITU WACH	DEDELINAE	SANITARY NAPKINS	CHARADOO	COAD T	ALC: TIC	cites T	<b>OOTHPASTE</b>		
BEVERAGE	1.0000	Charms	DECUCIONA	DIALER	P DAUK	HANN GEL	PACIFIC CIT.	MEDICINE	MOOTH MOON.	PERFORME	JANETANT INFINITE	SHAMEOU	JUAN I	ALL TIE	2012	DOTAFASTE		
CREAMS	0.0190	1.0000																
DEODORANT	-0.1398	0.2705																
DIAPER	-0.0359	0.0966	-0.0803	1,0000														
FLASK	0.2722	0.4583	-0.9526	-0.1134	1:0000													
HAIR GEL	-0.0311	-0.0069	-0.0063	-0.0539	-0.4583	1,0000												
HAIR OIL	0.0465	0.0119	-0.1743	0.0575	0.7917	0.0180	1,0000											
MEDICINE	-0.0730	-0.0532	-0.2190	-0.0128	0.4821	-0.0074	-0.0219	1.0000										
MOUTH WASH	-0.8704	0,1741	-0.5222	-0.7884	0.6897	-0.1741	0.0031	-0.7385	1,0000									
PERFUME	-0.0313	0.0500	0.1922	0.0351	0.2722	-0.0306	-0.0067	0.0473	-0.1741									
SANITARY NAPK	0.0036		-0.1373			-0.0422	-0.0310	0.0088	100000000									
SHAMPOO	0.6806	0,3831	0.0633	0.2744	0.2940	-0.2686	0.3623	0.0921	-0.9028	-0.3276	0.547							
SOAP	-0.0484	0.0198		-0.0802		-0.0386	0.0900	-0.1182		-0.1079			10000					
TALC	0.0729	-0.0184	0.1273	-0.0388	0.5784	0.0035	0.0215	0.0044	-0.3015	0.0217	-0.013		COMMISSION	0000				
TISSUES	-0.0157	0.0835			-0.1497	-0.0753	-0.1048	0.0871		0.0428	0.032		0.0483 -0	-	0000			
TOOTHPASTE	-0.2400	0.0275	0.3416	-0.0451	-0.5784	-0.0505	-0.1147	0.5452	0.3015	-0.1650	0.035	2 -0.3676	0.0387 -0	1463 -0	.0444	1.0000		

Figure 4 Product association in Horana territory

#### **Findings**

By checking associations between products in territories with higher sales, the company can increase profits. In Nugegoda territory there is an association pattern between water flasks and electric bulbs with 0.6877 positive correlation. In Athurugiriya territory there is an association pattern between shampoo products and beverages with 0.6806 positive correlation. Also there are association between mouthwash and soap items, sanitary napkins and water flasks products, etc. In Horana territory there is an association between hair gel products and deodorants with strong positive correlation of 0.9138. Also, there is an association pattern between sanitary napkins and deodorant.

#### Identifying Behaviors of Sales Representatives

#### Method

Efficiency of a salesperson can be determined by the way he works. If a salesperson visits a certain route on the planned date, he is identified as an efficient employee. But if he delays the process, we should look for the reasons behind his delay. To get the average date difference of route planned date and actual visit date of sales representatives, first selected the salespersons who have ordered products in the given 3 months, then format of date columns was converted from general to date and got the date difference between route planned date and actually visited date using a date difference function. Using pivot tables, the graph of average date difference was drawn.

#### **Findings**

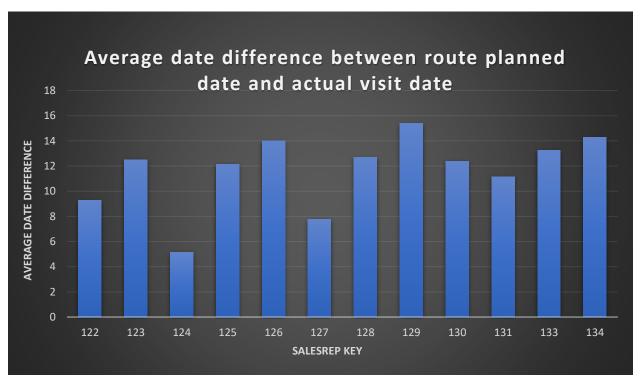


Figure 6 Average date difference

The bad performance of sales representatives will lead to business problems. So, we need to optimize employee efficiency if they are lacking, and we need to encourage them more for better business performances. Above bar chart represents the salesmen's efficiency. If the average date difference between route planned date and actual visit date of salesperson is minimum, then that salesperson done a good job. The salesperson who has salesrep key 124 is the best sales representative because his average date gap between route planned date and actually visited date is minimum. The 2nd best

sales representative is one who's salesrep key is 127 and least performed salesperson is the one who has salesrep key 129.

#### Analyzing Route Profitability

#### Method

To analyze route profitability, since there were lot of routes, it was decided to choose the five routes with the highest profits. The variables of "RouteKey" and "NetValue" in the both sheets of "FactOrders" and "FactReturns" were copied into new Excel sheet. The total net value for each route keys in both orders and returns were taken into a pivot table. Then, returns were deducted from the orders of each route and net values were obtained. After that, of these, routes with the highest five net values were selected. The "DimItem" sheet and "DimBrand" sheet were linked and the "BrandName" column was added to the "DimItem" sheet. Then the "FactOrder" sheet and "DimItem" sheet were linked and the brand name column was added to the "FactOrder" sheet. Then the selected five route keys were filtered in the "FactOrders" sheet. The routekey and brand name columns were taken to a new Excel sheet and ne column was obtained as "Index" and each row was typed as 1. After that, pivot table of Routekey and brand name was obtained. Then interactive bar chart of number of orders versus brand name was obtained depending on the route changes. Since there was no route name to routekey-0, it was renamed as "Name not defined" in the Excel sheeta.

Table 1 Roots with highest profits

Route_Name	Routekey	Profit
Name not defined	0	35,820,631
NAGODA-DODANGODA	145	1,370,641
HORANA - BELLAPITIYA	249	1,252,601
PILIYANDALA~I	236	950,281.1
ALUTHGAMA TOWN	151	902,828.7

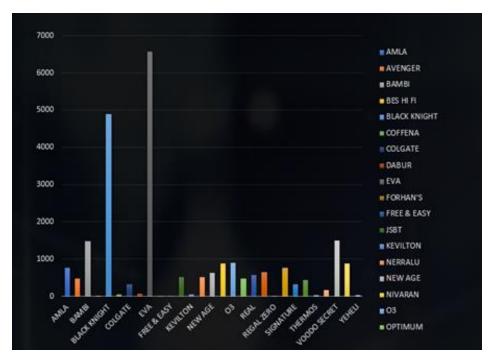


Figure 7 Sales of RouteKey - 0

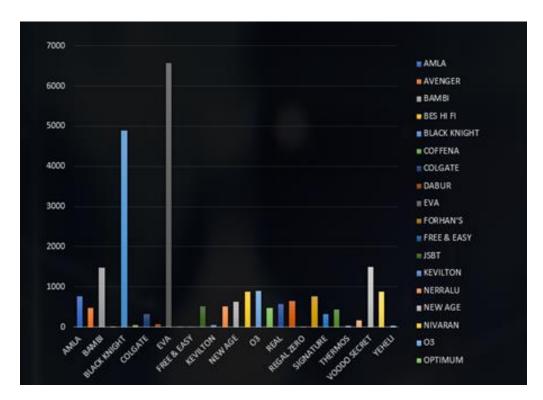


Figure 8 Sales of Nagoda-Dodangoda

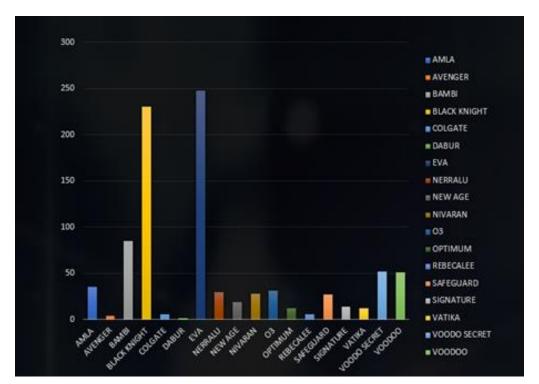


Figure 9 Sales of Horana- Bellapitiya

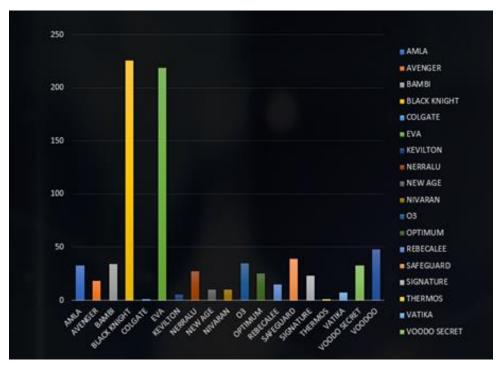


Figure 10 Sales of Piliyandla~1

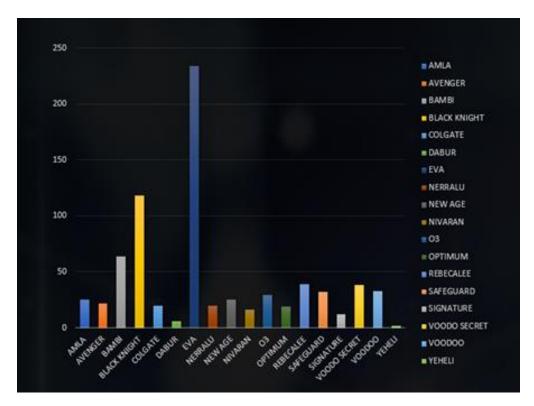


Figure 11 Sales of Aluthgama Town

#### **Findings**

By considering above five graphs, the highest profit has earned by selling the brands of "Eva" and "Black Knight" in all routes with the highest net value. Apart from Piliyandala~1, the "Eva" brand has highest sales in other routes, RouteKey – 0, Nagoda-Dodangoda, Horana- Bellapitiya and Aluthgama Town. The "Black Night" brand has highest sales in Piliyandala~1. After that, "Bambi" and "Voodoo secret" have made more route profits than others. "Cofeena", "Yeheli", "Free &Easy"," Thermos", "Kevilton", "Colgate", "Vatika" can be considered as the least selling brands. As well as, "Amila", "Nivaran", "O3", "Signature" can be considered as average selling brands. Overall, it can be concluded that, sales on route key-0 and Nagoda-Dodangoda route are much higher than other routes.

#### **Key Findings**

- There is an increment of 7.19% in number of orders from October to November but there is a slight decrement of 1.86% from November to December.
- Highest percentage of orders which is 11.08% were ordered by Nugegoda~2 territory. Second
  highest percentage is 9.62% in Aturugiriya territory and least percentages of orders were
  ordered in Ratmalana, Mathugama, Moratuwa and Panadura territories.
- In Nugegoda territory there is an association pattern between water flasks and electric bulbs.
- In Athurugiriya territory there are product association patterns between shampoo products and beverages, mouthwash and soap items, sanitary napkins and water flasks, etc.
- In Horana territory there is an association between hair gel products and deodorants with strong positive correlation.
- There is an association pattern between sanitary napkins and deodorants.
- The salesperson who has salesrep key 124 is the best sales representative because his average
  date gap between route planned date and actually visited date are minimum and 2nd best
  sales representative is one who's salesrep key is 127 and least performed salesperson is the
  one who has salesrep key 129.
- The highest profit has earned by selling the brands of "Eva" and "Black Knight" in all routes.
- The "Eva" brand has highest sales in other routes, RouteKey 0, Nagoda-Dodangoda, Horana-Bellapitiya and Aluthgama Town.
- The "Black Night" brand has highest sales in Piliyandala~1.

#### Conclusions

- Overview business status of the company during the months October, November and
  December looks satisfying but with slight drawbacks due to decrease in number of orders from
  November to December. But at the same time number of orders that returned too have been
  reduced implying the quality of products have increased and up-to standards and the
  employees too have done a great job delivering the exact orders without errors.
- Among the 12 territories out of many, where orders have been placed during the three months most of the territories have contributed for the sales in that time period in a range of 8 11 %. While only four of the territories are with lower order percentages of about 6%. Overall, there is no much difference between the order percentages but the company can take necessary steps to increase sales in those 4 territories too.
- Product association patterns observed in Nugegoda territory are of water flasks and electric bulbs. Sale of water flasks and electric bulbs have a positive correlation in that territory. Similarly, sales of beverages and shampoo products have a positive correlation in Athurigirya territory while sales of hair gel products and deodorants, sale of deodorant and sanitary napkins have a positive correlation in Horana territory.
- Among 12 sales representatives out of many, who have done sales during the three months
  only three of them have an average difference of dates of less than 9 days while all the others
  have delayed their services more than that implying relatively less employee efficiency.
- Routes with route keys 0, 145, 249, 236 and 151 have highest profits out of all routes and the brands of the items sold the most are EVA and Black knight while the items sold least are from brands Cofeena, Yeheli, Free and Easy, Thermos, Colgate and Vatika.

#### Recommendations

- Offer discounts to customers to increase sales in January.
- Target specific areas which have least percentages of orders ordered territories like Ratmalana, Mathugama, Moratuwa, and Panadura and Canvassing the neighborhood, placing flyers in mailboxes or hanging ads on doorknobs to advertise products.
- Need to consider about the product associations when delivering items into a territory.
- In order to maximize the sales of associative products, methods of storing techniques need to be used.
- Posting ads about products which have association patterns together on websites that receive heavy traffic.
- Give commissions and offer quarterly bonuses to best sales representatives.
- Encourage and motivate minimally performed sales representatives to boost their performance.
- Advertising product through event sponsorship, television, radio, social media and newspapers
- Use cheap and good quality raw materials to reduce product cost and increase sales.
- Enhance green concept by using eco-friendly materials when packaging instead of using plastic.
- Reduce production of items from brands with less sales.

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### Appendix

Row Labels	Sum of order_count
Oct	29.16%
Nov	36.35%
Dec	34.49%
<b>Grand Total</b>	100.00%

Row Labels	Sum of return_count
Oct	7.54%
Nov	43.65%
Dec	48.81%
<b>Grand Total</b>	100.00%

Row Labels	Sum of NetValue of orders	Sum of NetValue of returns	profit	top 5
0	39252851	3432220	35820631	1
145	1436676	66035	1370641	2
249	1352417	99816	1252601	3
236	1071091	120810	950281	4
151	1028734	125905	902829	5
255	938558	46097	892461	
147	890307	47202	843105	
163	788592	18192	770400	
178	963789	227770	736020	
244	760504	30755	729749	
253	778172	54758	723414	
6	721636	13606	708030	
245	761712	62665	699047	
141	733450	39227	694224	
44	686172	11671	674501	
9	679195	12005	667190	
143	699043	56801	642242	

11       716043       87309       628734         169       742162       124676       617486         186       787214       171339       615875         177       687127       91998       595129         5       602800       10765       592036         64       647455       69105       578351         29       703327       127996       575332         155       610729       39515       571214         23       685026       119129       565896         63       589617       43588       546029         228       615088       74224       540864         41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400         222       519088       21858       497231	
186       787214       171339       615875         177       687127       91998       595129         5       602800       10765       592036         64       647455       69105       578351         29       703327       127996       575332         155       610729       39515       571214         23       685026       119129       565896         63       589617       43588       546029         228       615088       74224       540864         41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
177       687127       91998       595129         5       602800       10765       592036         64       647455       69105       578351         29       703327       127996       575332         155       610729       39515       571214         23       685026       119129       565896         63       589617       43588       546029         228       615088       74224       540864         41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
5       602800       10765       592036         64       647455       69105       578351         29       703327       127996       575332         155       610729       39515       571214         23       685026       119129       565896         63       589617       43588       546029         228       615088       74224       540864         41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
64       647455       69105       578351         29       703327       127996       575332         155       610729       39515       571214         23       685026       119129       565896         63       589617       43588       546029         228       615088       74224       540864         41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
29       703327       127996       575332         155       610729       39515       571214         23       685026       119129       565896         63       589617       43588       546029         228       615088       74224       540864         41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
155       610729       39515       571214         23       685026       119129       565896         63       589617       43588       546029         228       615088       74224       540864         41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
23       685026       119129       565896         63       589617       43588       546029         228       615088       74224       540864         41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
63       589617       43588       546029         228       615088       74224       540864         41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
228       615088       74224       540864         41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
41       572846       37874       534972         254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
254       592196       58067       534129         162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
162       551414       25568       525846         190       535446       11489       523957         66       537716       39316       498400	
190     535446     11489     523957       66     537716     39316     498400	
66 537716 39316 498400	
222 519088 21858 497231	
224 512842 16548 496294	
196 492550 8353 484197	
159 544624 65864 478760	
198 486586 11187 475399	
58 487053 15551 471502	
234 518408 59969 458439	
144 490603 48594 442009	
238 515765 76182 439584	
229 445071 10150 434921	
4 531994 117650 414344	
65 429256 14971 414285	

184	441578	28852	412726
1	425166	19011	406155
34	414526	12398	402128
174	538073	137686	400388
42	433503	34832	398672
248	442536	44242	398294
167	491404	95532	395872
2	410590	14998	395592
25	473034	77583	395451
148	484001	91419	392581
157	449412	61966	387447
3	460812	73530	387282
188	396744	10021	386724
197	380768	731	380037
37	382734	2953	379782
30	406053	26909	379144
60	469471	90361	379110
28	398671	27842	370829
257	414440	47130	367310
250	418154	52303	365851
33	375373	14663	360711
152	367715	7729	359986
67	407705	49240	358465
226	370998	16694	354305
223	356369	11609	344760
26	376168	32162	344006
192	352107	8702	343405
150	373908	35036	338872
237	372273	33632	338641

142	426976	88464	338512
173	503017	166061	336956
194	338202	3689	334514
38	374659	41417	333242
227	347536	15307	332230
180	402464	71253	331211
176	456853	126331	330523
189	335227	5431	329796
31	348354	22910	325444
161	353164	31124	322040
8	324780	2982	321798
232	345188	23416	321772
166	408759	87425	321334
61	335995	16886	319109
32	331741	12732	319009
252	349710	32747	316963
7	338496	22328	316168
171	351224	37715	313508
258	328081	20744	307337
36	310659	8915	301744
225	320952	22051	298901
239	348627	50048	298579
40	322806	29945	292861
168	316218	27126	289091
43	311689	31063	280626
175	341938	62705	279233
235	324046	44933	279113
27	296161	17626	278535
140	313478	38991	274486

160	290675	18753	271923
221	291073	21569	269504
233	301276	32146	269129
146	303964	35402	268562
256	292787	26715	266071
172	319747	57605	262142
62	269161	10936	258225
170	306675	51647	255029
24	271563	19049	252514
191	252783	2069	250714
156	250044	898	249146
158	286542	43929	242613
195	247662	7845	239818
240	266223	41020	225203
187	234293	11955	222339
165	231560	22911	208649
35	227384	21547	205837
183	260626	77374	183252
241	234289	54973	179317
154	183911	10910	173001
164	248754	79067	169688
179	221751	52649	169101
153	183454	20366	163088
231	188640	28623	160017
39	164573	5346	159227
181	217402	58694	158709
247	183908	26569	157339
193	149186	201	148985
243	208190	61501	146689

230	135237	4182	131055
182	173368	43342	130025
185	156936	27828	129109
242	141107	20790	120317
10	122802	17494	105308
251	34195	759	33436
246	1269	1269	0

Route 0	Sales
AMLA	771
AVENGER	474
BAMBI	1485
BES HI FI	1
BLACK	
KNIGHT	4885
COFFENA	46
COLGATE	318
DABUR	74
EVA	6571
FORHAN'S	8
FREE & EASY	15
JSBT	521
KEVILTON	40
NERRALU	509
NEW AGE	618
NIVARAN	886
О3	893
OPTIMUM	477
REAL	576
REBECALEE	655
REGAL ZERO	1
SAFEGUARD	767
SIGNATURE	327
SORBEX	438
THERMOS	26
VATIKA	169
VOODO	
SECRET	1503
VOODOO	881
YEHELI	35
<b>Grand Total</b>	23970

Route 145	Sales
AMLA	12
AVENGER	7
BAMBI	74
BLACK	
KNIGHT	184
COLGATE	3
EVA	269
JSBT	1
NERRALU	12
NEW AGE	37
NIVARAN	38
О3	34
OPTIMUM	14
REBECALEE	34
SAFEGUARD	19
SIGNATURE	2
VATIKA	3
VOODO	
SECRET	73
VOODOO	39
<b>Grand Total</b>	855

Route 249	Sales
AMLA	25
AVENGER	22
BAMBI	64
BLACK	
KNIGHT	118
COLGATE	20
DABUR	6
EVA	234
NERRALU	20
NEW AGE	25
NIVARAN	16
О3	29
OPTIMUM	19
REBECALEE	39
SAFEGUARD	32
SIGNATURE	12
VOODO	
SECRET	38
VOODOO	33
YEHELI	2
<b>Grand Total</b>	754

Doube 226	Color
Route 236	Sales
AMLA	33
AVENGER	18
BAMBI	34
BLACK	
KNIGHT	226
COLGATE	1
EVA	219
KEVILTON	5
NERRALU	27
NEW AGE	10
NIVARAN	10
03	35
OPTIMUM	25
REBECALEE	15
SAFEGUARD	39
SIGNATURE	23
THERMOS	1
VATIKA	7
VOODO	
SECRET	33
V00D00	48
<b>Grand Total</b>	809

Route 151	Sales
AMLA	35
AVENGER	4
ВАМВІ	85
BLACK KNIGHT	230
COLGATE	5
DABUR	1
EVA	248
NERRALU	29
NEW AGE	19
NIVARAN	28
03	31
OPTIMUM	12
REBECALEE	5
SAFEGUARD	27
SIGNATURE	14
VATIKA	12
VOODO SECRET	52
VOODOO	51
<b>Grand Total</b>	888