BUSINESS ANALYSIS WITH STRUCTURED DATA

A1: SQL Analysis Assessment: DAT-7470: FMBAN1

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Whether healthy food is less expensive arises because the issue of cost and health permeates the whole food sector. This research will attempt to respond to that business query by analyzing the cost and healthfulness of food. Health is not just the absence of sickness or disability; it is a condition of physical, mental, and social well-being. Food that is high in nutrients, such as vitamins and minerals, and low in calories is considered healthy (Binkley & Golub, 2011). According to Crockett et al. (2018), the cost is the sum needed to purchase something or the comparable amount paid to produce a good or provide a service. In our situation, it is a frequent misconception that healthy food is less expensive than unhealthy food, yet this is untrue.

Whatever the meter, Beer is always the least-priced category. Supplements foods are the costliest category when the price is calculated per 100 edible grams or an intermediate portion. However, they place in the center when the price is calculated per calorie. The ranking's most significant discrepancy is found when contrasting the cost of fruits and vegetables with low-calorie items. The cost of the food categories for fruits and vegetables is higher than those for moderation when expressed as price per 100 calories. Vegetables are cheaper than either fruits or moderate foods, whose costs are almost identical when calculated using the price per 100 edible grams. Fruits and vegetables are less expensive than foods for moderation when priced per average-portion size. Using the correlation coefficient to illustrate why and how cost (price) and nutritious food (calories) are statistically significant. In this analysis, the null hypothesis is that healthier food is less expensive, whereas the alternative hypothesis is that healthier food is not less expensive. The hypothesis is rejected if the value is less than the alpha threshold. The evidence is meaningful in this circumstance because the alternative hypothesis is correct.

Each price distribution differs from the others statistically, and the p-value for each test is relatively insignificant. We are still determining the cost of food; however certain dishes may be economically effective at supplying the necessary nutrients. The cost metric reveals that the recommendations for vegetables and protein are the most expensive to follow, with fruit coming in the middle (Mozaffarian et al., 2018). The most affordable food groups are grains and dairy products. According to UNICEF, half of the plate should be made up of fruits and vegetables at every meal to save money that would otherwise be spent on other items. Vegetables and fruits without added sugar or fat are low in calories and tend to be costly to obtain food energy. Foods low in calories tend to have a higher price when calculated per calorie. On the other hand, less healthful foods that are heavily added sugars typically have a low price per calorie and are high in calories. On the other hand, vegetables and fruit are less expensive than the majority of dairy, protein, and moderation items when compared based on edible weight or typical portion size.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.019418388
R Square	0.000377074
Adjusted R Square	-0.003193008
Standard Error	3661.447994
Observations	282

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	1415969.567	1415969.57	0.10562049	0.745429015
Residual	280	3753736396	13406201.4		
Total	281	3755152365			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	873.4994337	320.5391322	2.72509452	0.006833112	242.5269669	1504.471901	242.526967	1504.4719
caloriesperserving	0.537311477	1.653301378	0.32499306	0.745429015	-2.717166819	3.791789774	-2.7171668	3.79178977

t-Test: Two-Sample Assuming Unequal Variances

	price	*caloriesperserving*
Mean	949.8593972	142.1148936
Variance	13363531.55	17454.01579
Observations	282	282
Hypothesized Mean Difference	0	
df	282	
t Stat	3.708126271	
P(T<=t) one-tail	0.000125692	
t Critical one-tail	1.650274966	
P(T<=t) two-tail	0.000251383	
t Critical two-tail	1.968411901	

we should reject the null hypothesis since p value is less than Alpha value

References

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