Product assortment in grocery stores

Application of the GroPromo tool in Malta

MAPHM Symposium
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Marketing Mix

Product
Price
Place
Promotion
Cross-sectional study

Aim

• To assess the placement of 7 key food and beverage (F&B) categories in 9 different locations within grocery stores (GS)

Hypothesis

1. Larger GS place unhealthy F&B in more prominent locations than smaller GS
2. Stores in more deprived localities place unhealthy F&B in more prominent locations than GS in affluent localities (by tertile)

Method

• March-April 2014

• Validated GroPromo tool applied to grocery stores (n = 28) in a representative, random sample of ten localities in Malta & Gozo.
# Locations

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Promotional prominence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside</td>
<td>Area immediately outside of store entrance</td>
<td>Low</td>
</tr>
<tr>
<td>Edge</td>
<td>Inside perimeter of store</td>
<td>Low</td>
</tr>
<tr>
<td>Entrance</td>
<td>Area within 10 feet (3 metres) of store entrance</td>
<td>Medium</td>
</tr>
<tr>
<td>Aisle</td>
<td>Main aisles where food is displayed</td>
<td>Medium</td>
</tr>
<tr>
<td>Island</td>
<td>Temporary, moveable display in isolation or standing out significantly from other areas</td>
<td>Medium</td>
</tr>
<tr>
<td>End Cap B</td>
<td>End of aisles not facing checkouts</td>
<td>Medium</td>
</tr>
<tr>
<td>End Cap A</td>
<td>End of aisles facing checkouts</td>
<td>High</td>
</tr>
<tr>
<td>Checkout side</td>
<td>Displays lining checkout lanes</td>
<td>High</td>
</tr>
<tr>
<td>Checkout edge</td>
<td>End cap of the checkout lanes (facing end cap A)</td>
<td>High</td>
</tr>
</tbody>
</table>

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Data analysis

• Data not normally distributed

• Non-parametric tests carried out to:
  • detect associations between product categories and product location (Spearman’s rank correlation coefficient)
  • detect significant differences in product promotional placement between stores of different size and between SE tertiles (Kruskal-Wallis H)
  • to compare unhealthy and healthy food placement in areas of low, medium and high promotional prominence across SE tertiles, after controlling for store size (rank analyses of covariance)
Results - descriptive

- Sweets/chocolates most frequently displayed category across all locations and store sizes (except some green grocers)

<table>
<thead>
<tr>
<th>Promotional prominence</th>
<th>Unhealthy foods</th>
<th>F&amp;V</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>5.89 (5.57)</td>
<td>0 (0)</td>
</tr>
<tr>
<td></td>
<td>[0 - 19]</td>
<td>[0 - 0]</td>
</tr>
<tr>
<td>Medium</td>
<td>7.41 (7.13)</td>
<td>0.43 (0.57)</td>
</tr>
<tr>
<td></td>
<td>[0 - 22]</td>
<td>[0 - 2]</td>
</tr>
<tr>
<td>Low</td>
<td>5.04 (3.35)</td>
<td>1.07 (0.66)</td>
</tr>
<tr>
<td></td>
<td>[0 - 16]</td>
<td>[0 - 3]</td>
</tr>
</tbody>
</table>
Store Size and Promotional Practices

• # of checkouts:
  • Strongly, positively correlated with number of unhealthy items observed in areas of high ($p = <0.01$) and medium ($p = <0.01$) promotional prominence
  • Strongly, negatively correlated with outdoor F&V displays specifically ($p = <0.01$)
  • Moderate to strong positive correlation with number of locations containing crisps ($p = 0.006$); biscuits ($p = <0.01$); juice drinks ($p = 0.001$), sweets or chocolates ($p = <0.01$) and cereal ($p = <0.01$)
  • moderately, positively associated with the presence of child-accessible shelves that contained a higher proportion ($> 75\%$) of CFC ($p = 0.017$)
Store Size and Promotional Practices

• **End cap** displays and **checkout end** displays strongly positively correlated with observations of sweets/chocolates and cereals ($p = <0.01$)

• Strong correlation of food categories with aisle displays ($p = <0.01$) **except** for F&V (edge) and soft drinks (end caps)

• No F&V displays were observed at any location of high promotional prominence
Frequency of food displays in different locations by SE tertile

No significant differences by SE tertile in the distribution of foods in locations of low, medium or high promotional prominence, or in the proportion of CFC in shelves that are accessible to children

except for

a significant difference in the frequency of display of unhealthy foods at checkout sides ($p = 0.019$) between medium (8.0) and high (19.18) SES stores ($p = 0.023$)
Conclusions

• **Hypothesis 1**: Larger GS place unhealthy F&B in more prominent locations than smaller GS

• **Hypothesis 2**: Stores in more deprived localities place unhealthy F&B in more prominent locations than GS in affluent localities (by tertile)
Limitations

• Since this research is not longitudinal, results are not indicative of any causal relationship

• Sample of food items explored was not selected at random (hence does not represent the range of healthy or unhealthy foods available to consumers)

• Only grocery stores were assessed

• No link with individual purchasing behaviour can be made
Implications

• Initiatives to alter product placement strategies within grocery stores should be considered

• Focus on reducing visibility and prominence of unhealthy food categories (e.g. “healthy checkouts”)

• Online shopping environment?

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Sort by: [Price] [Date] [Name]

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7up 1.5l - Buy 6 for £7.98
7up Free 1.5l - Buy 6 for £7.98

[Images of various products]
Thank you
Questions?

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