

Importance of Corporate Social Responsibility in brand value of fruits and vegetables

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Introduction & Framework

- In 1991, *David Aaker* defined the *Brand Equity* and provided a four-dimensional scale to measure brand equity that has been validated in many industries.
- The brand dimensions are:
 - Brand Awareness
 - Perceived Quality
 - Brand Loyalty
 - Brand Associations

Introduction & Framework

- This model of Brand Equity on products such fruits and vegetables is a topic that has not yet been extensively studied.
- They are often perceived by consumers as a low value added thus very sensitive to price competition.

Introduction & Framework

- Brand Associations, according to *Aaker* is anything that links the consumer's mind to the brand.
- It can also be measured with many different items depending on the industry, such as *Uniqueness, Perceived Added Value* and *Corporate Social Responsibility*.

Introduction & Framework

- In this study, we aim:
 - To validate a scale to measure Brand Equity in fruits and vegetables.
 - To configure whether the CSR as a part of a *Brand Value dimension*, is a factor for a consumer to **pay for a premium price**.

Methodology

- Online questionnaire;
- Quantitative responses on brand dimensions;
- Data collected on socio-demographic characteristics and consumer behaviour;
- *Cronbach's Alpha* for reliability;
- Multiple regression analysis.

Results: Scale

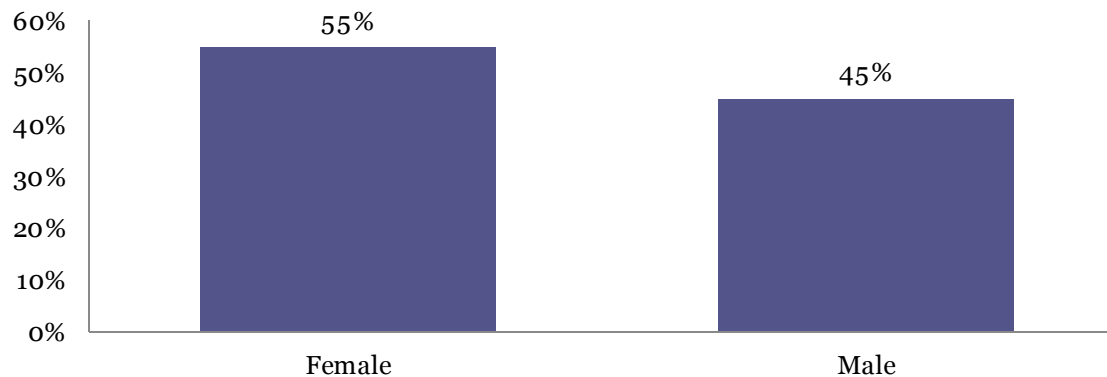
- A scale for Brand equity was proposed and tested with three different brands associated with the following brand dimensions:
 - Brand Awareness
 - Perceived Quality
 - Brand Loyalty
 - Brand Associations:
 - Uniqueness.
 - Perceived Added Value.
 - Corporate Social Responsibility (CSR)

Results: Scale

- *Cronbach's Alpha values* were based on standardised items computed for the scales in each of the categories;
- The Alpha values result was ranged from 0.95 to 0.96 -- indicating that the scales developed in this study were acceptable and reliable.

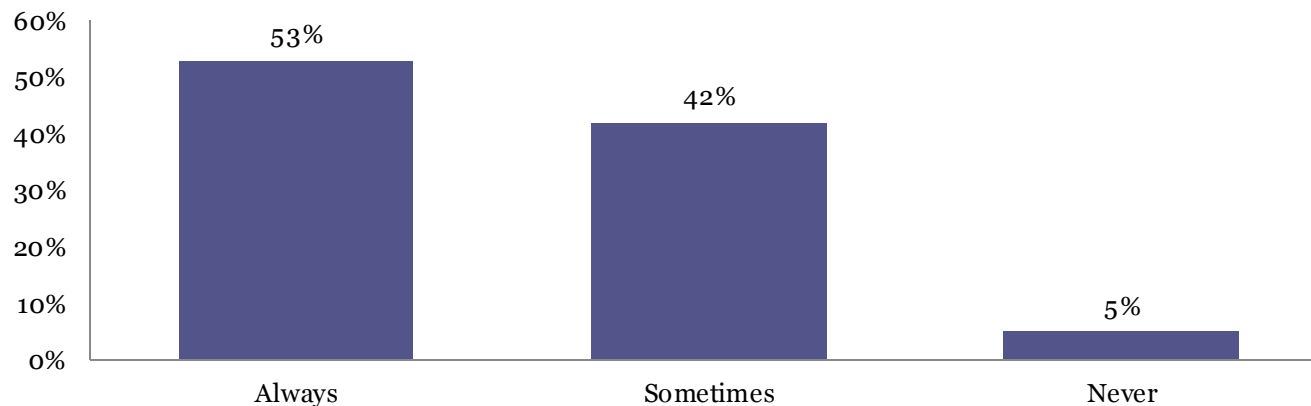
Results: Demographics

- **383** Spanish consumers/buyers of fresh fruit and vegetables responded the online questionnaire in 2017.
- Percentage in gender were:



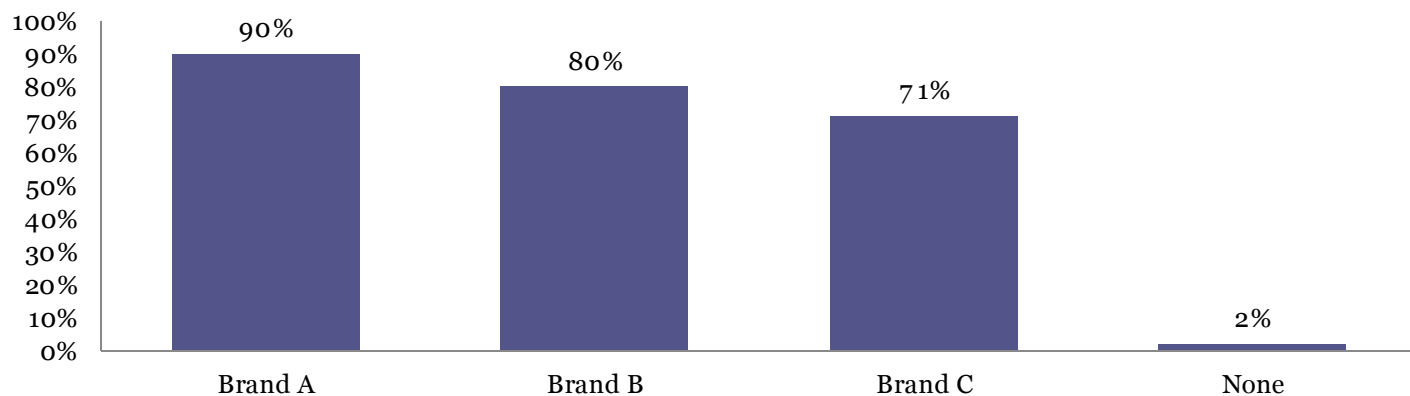
Results: Demographics

- Responses to the question: Are you in charge of buying fresh fruits and vegetables at home?



Results: Brands

- Pre-test was made to select brands that has more than 50% of awareness in Spanish market.
- Results of awareness in final online questionnaire were:



Results: Multiple Regression

- Multiple regression analysis was performed to configure whether any of the brand value dimensions are the factors for a consumer **to pay for a premium price.**
- Within the Brand Association dimension, **CSR** item was highlighted and studied.

Results: Regression Brand A

```

Call:
lm(formula = PriceA ~ QualityA + LoyaltyA + AwarenessA + CsrA, data = Brand Equity)

Residuals:
    Min       1Q   Median       3Q      Max
-3.1638 -0.5188  0.1861  0.6136  2.2053

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.05561    0.34710  -0.160  0.87281
QualityA     0.26463    0.09284   2.850  0.00463 **
LoyaltyA     0.40551    0.06607   6.137 2.34e-09 ***
AwarenessA  -0.09887    0.08815  -1.122  0.26285
CsrA         0.34349    0.08022   4.282 2.41e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9329 on 340 degrees of freedom
(39 observations deleted due to missingness)
Multiple R-squared:  0.451,    Adjusted R-squared:  0.4445
F-statistic: 69.82 on 4 and 340 DF,  p-value: < 2.2e-16

```

Results: Regression Brand B

```

Call:
lm(formula = PriceB ~ QualityB + LoyaltyB + AwarenessB + CsrB, data = Brand Equity)

Residuals:
    Min       1Q   Median       3Q      Max
-2.80611 -0.54809  0.05264  0.54088  2.06322

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.24314    0.24786   0.981   0.3274
QualityB     0.12386    0.08872   1.396   0.1637
LoyaltyB     0.47269    0.06140   7.698 1.95e-13 ***
AwarenessB  -0.16266    0.06531  -2.491   0.0133 *
CsrB         0.44048    0.07348   5.995 5.77e-09 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.8406 on 304 degrees of freedom
(75 observations deleted due to missingness)
Multiple R-squared:  0.5126,    Adjusted R-squared:  0.5062
F-statistic: 79.93 on 4 and 304 DF,  p-value: < 2.2e-16

```

Results: Regression Brand C

```

Call:
lm(formula = PriceC ~ QualityC + LoyaltyC + AwarenessC + CsrC, data = Brand Equity)

Residuals:
    Min       1Q   Median       3Q      Max
-2.77260 -0.53217  0.05391  0.53328  2.49664
|
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.26068    0.26018   1.002   0.317
QualityC     0.04627    0.09626   0.481   0.631
LoyaltyC     0.43310    0.06838   6.333 1.02e-09 ***
AwarenessC  -0.05005    0.07329  -0.683   0.495
CsrC         0.44396    0.08555   5.189 4.19e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.842 on 266 degrees of freedom
(113 observations deleted due to missingness)
Multiple R-squared:  0.4977,    Adjusted R-squared:  0.4901
F-statistic: 65.88 on 4 and 266 DF,  p-value: < 2.2e-16

```


Results: Correlation and VIF

- The bivariate correlations based on Pearson, shows that all variables have a **significant positive correlation**. An analysis of *collinearity* is thus needed.
- The *collinearity* diagnostics of $VIF > 5$ (1,66 to 3,34) shows no problem of *multicollinearity*.

Results: CSR

- There is a significance and positive direction relationship between CSR and price premium on the three brands that being studied.
- This means that CSR is a **strong predictor** of customers' willingness to pay a price premium in all three studied brands.

Conclusion

- We can conclude that measuring Brand Equity from a consumer perspective can be done in fresh fruit and vegetables brands based on the scale and brand dimensions propositions.

Conclusion

- We can also conclude that consumers give more emphasis to a specific fresh fruit or vegetable brand that has strong *Corporate Social Responsibility (CSR)*.

Implications

- This study shows a valid and reliable scale for measuring brand equity in the fresh fruit and vegetables industry;
- Companies can develop benchmarking tools by using this measure;
- They can observe brand performance from a consumer perspective and track the changes over time.

Implications

- Corporate Social Responsibility is a stronger predictor of consumer's willingness to pay a premium price in the fresh fruit and vegetable industry than other brand dimensions such as quality or awareness.
- Focus on CSR when building a brand may be a factor that can differentiate from competitors in a profitable way.

Limitations and Further Research

- This study is limited to the top brand in each of the three fruit and vegetable categories that being studied. There are possibilities for future research in different categories or in different brands within the same category.
- Establishing the relationships between the model's brand equity dimensions and business performance indicators, such as market share, profitability, return on investment, will be a challenging but worthwhile effort for future research.

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