PRESENCE OF THE DOUBLE JEOPARDY PHENOMENON IN THE PURCHASE OF RECURRENT CONSUMER PRODUCTS IN MEXICAN HOUSEHOLDS

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Resumen:

La para identificar la presencia del fenómeno de la doble incriminación en los hogares mexicanos, se realizó un estudio cuantitativo longitudinal a través de un panel de 65 hogares en el Estado de Morelos, 65 hogares en la Ciudad de México y 22 hogares en Yucatán, los tickets de Compra realizados fueron registrados en Excel durante 12 semanas, y luego analizaron y midieron los comportamientos de compra recurrentes en esos hogares. Los productos seleccionados fueron cereales y yogur. Como resultado, se encontró la presencia de doble Jeopardy en las compras realizadas por los hogares mexicanos. La investigación también reporta pequeñas desviaciones y excepciones, todos los consumidores son diferentes y generalmente tienden a comportarse de manera homogénea con el segmento al que pertenecen.

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PRESENCIA DEL FENOMENO DE LA DOBLE JEOPARDIA EN LA COMPRA DE PRODUCTOS DE CONSUMO RECURRENTE EN LOS HOGARES MEXICANOS

Abstract:
In order to identify the presence of the double jeopardy phenomenon in Mexican households, a longitudinal quantitative study was carried out through a panel of 65 households in the State of Morelos, 65 households in Mexico City and 22 households in Yucatan, the Purchase tickets made were recorded in Excel for 12 weeks, and then analyzed and measured the recurring purchasing behaviors in those households. The selected products were cereals and yogurt. As a result, the presence of double Jeopardy was found in purchases made by Mexican households. The research also reports small deviations and exceptions, all consumers are different and generally tend to behave homogeneously with the segment to which they belong.

PRESENÇA DO DUPLO FENÔMENO JEOPARDIA NA COMPRA DE PRODUTOS DE CONSUMO RECORRENTES EM FAMÍLIAS MEXICANAS

Resumo:
A fim de identificar a presença do fenômeno da dupla penalidade nos domicílios mexicanos, foi realizado um estudo quantitativo longitudinal por meio de um painel de 65 domicílios no Estado de Morelos, 65 domicílios na Cidade do México e 22 domicílios em Yucatán, os tiquetes de compra realizados foram registrado no Excel por 12 semanas e, em seguida, analisado e medido os comportamentos de compra recorrentes nessas famílias. Os produtos selecionados foram cereais e iogurte.
Como resultado, constatou-se a presença do risco duplo nas compras feitas pelas famílias mexicanas. A pesquisa também relata pequenos desvios e exceções, todos os consumidores são diferentes e geralmente tendem a se comportar de maneira homogênea com o segmento a que pertencem.
1. INTRODUCCIÓN:

Despite the strong presence of the double jeopardy phenomenon in the markets, this recurring pattern is less diffused in most of the specialized literature, for this reason it is little known among researchers, academics and marketing practitioners even though its empirical evidence and strong theoretical foundation. Ehrenberg et al. (1990); Yang, (2005); Lynn (2008) and Singh (2008) define it as follows: in a specific period of time a 'small' brand (those reporting low market share) has fewer buyers than a 'large' brand (those reporting high market share), so consumers tend to buy it less frequently; In terms of loyalty, this means that, all things being equal, small brands generally retain less loyalty among their consumers than big brands among theirs. Double jeopardy not only refers to the consumers buying behavior, also to the customers’ attitudes toward products, in this case less popular brands receive less positive attitudes on average than the more popular ones, as an example we have a certain brand that get more favorable attitudes because it is more popular, for being trendy or fashionable, and therefore that brand will be more purchased by customers.

Knowing the double jeopardy in a particular product category helps marketing specialists to see their markets differently and realize that these patterns are common; it also helps to ‘estimate benchmarks in mature markets' by evaluating repeat purchase rates and verifying brand’s performance with market standards (Ehrenberg et al. 1990); (Hoek et al. 2003). This research aims to identify the presence of recurrent pattern or empirical generalization of double jeopardy in Mexican households. The study is presented in three sections; the first one is the theoretical framework which explains the double jeopardy phenomenon and its implications on consumer buying behavior; the second section briefly describes the methodology used in this research, and finally section three presents the results and conclusions.

2. MARCO TEÓRICO

The double jeopardy theory was first proposed in 1963 by sociologist William McPhee as a result of his studies on comic strips and radio presenters. McPhee concluded, first, that, in competitive markets, the least popular product has fewer consumers and, secondly, is consumed infrequently compared to popular products, for these two reasons, he called it double jeopardy phenomenon (Martin, 1973); (Ehrenberg, 1990); (Michael, 1999). Later on, marketing researchers found that the same phenomenon was recurrent in the consumption of packaged products (Ehrenberg et al., 1990); (Martin, 1973); since then, the presence of the double jeopardy phenomenon is mainly recognized in goods of repeated purchase (Ehrenberg et al. 1990), as in the case of breakfast cereals, gasoline, soap and coffee; however, its presence has also been identified in the preference of radio programs, television and newspapers (Ehrenberg et al. 1990.); (Shaw, 2004).

For Martin (1973) the double jeopardy can also be explained, in more specific terms, as follows: it is obvious that a small brand unknown by a proportion of total consumers in the product category is not bought by them, in other words, if the consumer does not know a brand, it is impossible to buy it. However, those who do know the small brand will also have the option to buy a different brand and therefore, they may not buy the small brand as often as they would if it were the only brand. So, from the proportion of consumers who know the small brand, only a small proportion of them will buy that brand and it will do it infrequently.

McPhee (1963) also offers a behavioral explanation of the phenomenon with an example of two restaurants, one more popular than the other but both with similar merits (quality, service, and accessibility), the author points out that diners who only know the restaurant + P (most popular) will only go to this one because they do not know the other one, in contrast, diners who are aware of both restaurants will also eat at –P (less popular) but less frequently because they will divide their visits between both restaurants, McPhee's explanation is illustrated in figure 1 with a hypothetical example of proportional division resulting from a double jeopardy between two brands.
Figure 1 example of proportional division resulting from a double jeopardy between two brands.

As mentioned in the introduction, double jeopardy is not limited to customer buying behavior, but also attitudes in this case; less popular brands receive less positive attitudes on average than popular ones. An example of this phenomenon is a brand that acquires more favorable attitudes because it is more popular, trendy or fashionable (Ehrenberg et al. 1990). In the same order of ideas, McPhee (1963) adds that few diners at the restaurant –P will select it as their favorite because there are other options, and when diners who choose restaurant P are asked about their preference almost everyone will say that it is their favorite because few knows that there is restaurant –P.

Dawes, Bond, Hartnett, and Sharp, (2017) and Ehrenberg (2004) claim that smaller brands in market share or popularity suffer from this statistical selection effect: there is a mathematical reason why small brands always suffer double jeopardy, there is a greater media exposure of their competence.

The double jeopardy behavior pattern can be seen in Table 1, where it is observed that there is a decrease in both penetration (% of purchase in the year), as in the average purchase rate (number of purchases per family) for brands with less market share or less popular; in other words, the double jeopardy pattern indicates that brands with the highest market penetration tend to get a higher buyback compared to those with the lowest market share (Zhilin, 2005).

<table>
<thead>
<tr>
<th>Brand</th>
<th>Percent buying in year</th>
<th>Number of purchases per buyer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maxwell House</td>
<td>24</td>
<td>3.6</td>
</tr>
<tr>
<td>Sanka</td>
<td>21</td>
<td>3.3</td>
</tr>
<tr>
<td>Tasters Choice</td>
<td>22</td>
<td>2.8</td>
</tr>
<tr>
<td>High point</td>
<td>22</td>
<td>2.6</td>
</tr>
<tr>
<td>Folgers</td>
<td>18</td>
<td>2.7</td>
</tr>
<tr>
<td>Nescafe</td>
<td>13</td>
<td>2.9</td>
</tr>
<tr>
<td>Brim</td>
<td>9</td>
<td>2.0</td>
</tr>
<tr>
<td>Average</td>
<td>17</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Source: Ehrenberg et al. (1990)

The double jeopardy generally occurs when brands with the largest market share have more advertising support and a wider distribution, which generates more buyers and greater loyalty (Ehrenberg et al. 1990; Chaudhuri, 1995); over time, loyalty favors the decrease in advertising and distribution costs (Chaudhuri, 1995); if the company continues with this marketing strategy, the brand will achieve greater popularity and with this their market penetration will increase. In this way, a virtuous circle is created that allows the brand to benefit from the double jeopardy effect. It should be noted that it is normal for a small brand to generate less loyalty and it still survives despite the fact that large brands dominate the market (Ehrenberg et al. 1990); (Hoek, 2003).

Ehrenberg et al. (1990) claim that double jeopardy (DJ) arises whenever competing brands differ in popularity, most theories supporting the DJ phenomenon are based on this principle; so the causal factor seems to be the difference in popularity.

McPhee (1963) points out to social exposure as an explanation for the difference in popularity; when two brands are similar in attributes and functionality but differ in popularity (i.e., market share) it is because one is less exposed or less prominent in the market (Ehrenberg, 1997), the brand that becomes the most outstanding or exposed in a market usually promotes the FOMO effect (Fear of Missing Out, or fear of being left out or missing something); in other words, consumers want to use the same brand that everyone else is using and, therefore, not being left behind or left out (Arnould, Price and Zinkhan, 2004); then, all the manufacturer should do is ensure high brand awareness and that would make it more popular.
All the studies that explain the presence of the double jeopardy phenomenon rest on statistics related to the structure and size of the market; all things being equal, small brands have less loyalty just because they have lower market shares, it is not necessary to call any other combination of marketing or consumer variables to explain the double jeopardy (McPhee, 1963). Recent studies on the double jeopardy phenomenon include those carried out by:

Nagy, M., Bennett, D., and Graham, C. (2019) use panel data available from Egypt covering 15 months and 35 categories of frequently purchased consumer products; they tested the premise that buyer behavior patterns for poorer consumers do not differ much from those in advanced economies; all brand performance metrics differ according to brand penetration: a double jeopardy effect (DJ) and, the biggest brands are those that target the entire market, including the base. Wilkie, D.C. and Johnson, L.W. (2017) conducted an entry order research where it has emphasized the importance of a superior effort marketing mix in relation to the pioneer if a late participant must overcome the effect of the order of entry, it is shown that if this is the case, there may be a double jeopardy trend in which late participants who have a superior (lower) marketing mix effort not only gain (loss) market share through the effects of this superiority, they also avoid (incur) the penalty of market share associated with the input position.

Dawes, J., Bond, A., Hartnett, N., and Sharp, B. (2017) describe how smaller brands lose twice; have fewer buyers who are less loyal. A common measure of loyalty is the frequency with which people buy the brand in a certain period of time, an alternative measure of loyalty is how much people spend, reflecting the frequency of purchase and the price paid. Tarkiainen, A. and Ellonen, H.K. (2015) examined loyalty to printed magazines and magazine websites among the audience of the magazine’s website; basing his hypothesis on the double jeopardy phenomenon (DJ), they proved that true loyalty to the magazine’s website is driven by the print magazine’s market share. However, in the case of printed magazines, it seems that magazine customers with lower market shares express a higher level of true loyalty than clients of the market’s leading magazines.

In double jeopardy studies, there are deviations and exceptions, which are shown in the following examples: the study carried out by Wilson, D. and Winchester, M. (2019), considered if the brands in the European wine retail trade follow the established double jeopardy and the law of duplication in the purchase of brands, in order to investigate its limits to identify where the market shares are evident, they conducted a cross-purchase analysis within the wine category over a 12-month period, using a panel of n = 25,000 customers at an independent retail chain in an English-speaking European country. The analysis was carried out in the purchases of the 20 best wine brands, the results of the wine buyback confirmed a double jeopardy pattern The buyback behavior of these consumers from 20 major wine brands could have been predicted in-line with the duplication of purchase law brand, however, a few exceptions to these patterns were identified, suggesting the existence of market shares.

Why doesn’t the frequency of buying brands increase naturally? The double jeopardy studies carried out by Andrew Ehrenberg and Gerald Goodhardt answer this question: (Ehrenberg, 2002). In a double jeopardy study for fabric softener a small deviation of the Bounce brand was presented, the figure 1.7 shown in table 2; the data actually reveals a great opportunity for Bounce brand marketing strategists, the key is in the marketing strategy that leads to increasing the frequency of purchase.

<table>
<thead>
<tr>
<th>Brands</th>
<th>Percent buying in year</th>
<th>Frequency shopping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downy</td>
<td>48</td>
<td>3.6</td>
</tr>
<tr>
<td>Snuggy</td>
<td>3.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Bounce</td>
<td>18</td>
<td>1.7</td>
</tr>
<tr>
<td>Cling</td>
<td>8</td>
<td>2.0</td>
</tr>
<tr>
<td>Arm &amp; Hammer</td>
<td>5</td>
<td>2.1</td>
</tr>
<tr>
<td>Average</td>
<td>15</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Source: Ehrenberg et al. (2002)

Higher than expected buying rates may also occur for some market leaders (for example, a frequency of 4.1 instead of 3.6 for Downy), perhaps this is because big brands can afford to stock store shelves more regularly, several times a day, (Ehrenberg et al. 2002).

According to instant coffee analysts, ‘all consumers are different’, the Maxim brand had almost twice the standard annual purchase (about three) further analysis revealed that this was due to two large buyers acquiring the brand 30 and 32 times respectively (Ehrenberg et al. 2002).
Physician prescriptions are also subject to double jeopardy; the authors of this study found a few years ago that the high blood pressure medication, Capoten, was prescribed in the UK on average 10 times a year by a physician, instead of five times rate; this happened because doctors were offered a free PC if they prescribed Capoten often enough to be able to evaluate it, when the incentive was withdrawn, the purchase rate returned to its level (Ehrenberg et al. 2002).

Finally, weekly coverage and time spent watching television channels also follow a regular double jeopardy pattern. But Hispanic channels in the United States have much higher viewing levels (among Hispanics). Similarly, religious stations can afford exceptional amounts of programming for their few viewers because they are largely funded by donations (Ehrenberg et al. 2002).

The main hypothesis when studying the recurrence of the double jeopardy phenomenon is that the less popular a brand is, the less loyal its buyers are; examining less popular brands for a defined period of time produces small sample sizes that make statistical tests meaningless, however, by examining only the leading brands based on popularity, it allows a more positive equivalent statement to be made that 'the more popular a brand is, the more loyal its buyers are' (Ehrenberg et al. 2002).

Knowing the double jeopardy in a particular market helps marketing specialists to see their markets differently and realize that these patterns are common. It also helps to ‘estimate benchmarks in mature markets’ by evaluating the repetition of purchase rates and verifying the performance of brands with market standards (Ehrenberg et al. 1990); (Hoek et al. 2003). No studies have been carried out in Mexico to verify the presence of the double jeopardy phenomenon in recurring household purchases.

The values provided by the double jeopardy analysis are important for academics, researchers and practitioners of Mexican marketing, given the importance of implicit decisions on strategic issues such as dynamics and competitive tolerance, segmentation, positioning, diversity, innovation, benchmarking, game theory, attraction, retention and consumer loyalty, among others. (Mirror, J., 2019).

3. METODOLOGÍA

This research is from a quantitative approach; further, is an applied study, with an exploratory scope (Hernández, 2014); the design is longitudinal (León, 1997); (Sedgwick, 2014); inductive-deductive (Bunge, 1983); (Cabrera, 2010), (Rodríguez, 2017).

A quantitative, longitudinal research was carried out using the panel technique on 65 households in the state of Morelos, 65 households in Mexico City and 22 households in Yucatan. The study was carried out over a period of 12 weeks, covered in the first semester of 2019; tickets for purchases made daily were recorded in an Excel spreadsheet, to later analyze and measure the recurring purchasing behaviors in those households. The selected products to study the double jeopardy phenomenon were cereal and yogurt.

The main characteristics of the research household subjects are the following:

✓ No age restrictions.
✓ Made up of two or more members (excluding the single-person households).
✓ At least with one member devoted to housework.
✓ Indifferent marital status.
✓ No restrictions on professional activities for financial support.
✓ Active in the purchase of recurring consumer products

For the purposes of estimating the double jeopardy, the metrics were calculated

1. # of purchasing visits
2. # Families buying the brand
3. Market share
4. Average purchase frequency of the brands

Objective
Identify in Mexican households in the state of Morelos, Mexico City and Yucatan, the presence of the recurring pattern or empirical generalization of the double jeopardy.
H1 All things being equal, small brands (less popular or with less market share) generally retain less loyalty among their customers than large brands (more popular or with greater market share) among theirs.

4. RESULTADOS:

When analyzing the results of recurring purchases made by the control group, we find the presence of the double jeopardy phenomenon as shown in Table 3, where it is observed that the average number of purchases or average frequency of individual purchase (third column) varies much less between brands compared to participation figures (second column), and that also tends to be a lower figure for brands with fewer buyers (i.e., their participation), and as a result, the high and low figures tend to be in the two columns, generating the DJ phenomenon.

Table 3 Double jeopardy in the purchase of cereal

<table>
<thead>
<tr>
<th>Marca</th>
<th>Nº de compra</th>
<th>Presencia</th>
<th>CDM</th>
<th>Nº de compra</th>
<th>Presencia</th>
<th>CDM</th>
<th>Nº de compra</th>
<th>Presencia</th>
<th>CDM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kellogg</td>
<td>46.9%</td>
<td>2.2</td>
<td>55.1</td>
<td>3.3</td>
<td>3.8</td>
<td>0.9</td>
<td>3.3</td>
<td>3.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Quaker</td>
<td>17.1%</td>
<td>1.4</td>
<td>39.7</td>
<td>2.3</td>
<td>3.8</td>
<td>1.3</td>
<td>3.8</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Nestlé</td>
<td>13.3%</td>
<td>1.2</td>
<td>3.3</td>
<td>1.3</td>
<td>3.8</td>
<td>1.3</td>
<td>3.8</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Nestlé</td>
<td>0.3%</td>
<td>0.1</td>
<td>3.3</td>
<td>1.3</td>
<td>3.8</td>
<td>1.3</td>
<td>3.8</td>
<td>1.3</td>
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</tr>
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<td>0.1</td>
<td>3.3</td>
<td>1.3</td>
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<td>0.1</td>
<td>3.3</td>
<td>1.3</td>
<td>3.8</td>
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<td>0.1</td>
<td>3.3</td>
<td>1.3</td>
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<tr>
<td>Nestlé</td>
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<td>0.1</td>
<td>3.3</td>
<td>1.3</td>
<td>3.8</td>
<td>1.3</td>
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</tr>
<tr>
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<td>0.3%</td>
<td>0.1</td>
<td>3.3</td>
<td>1.3</td>
<td>3.8</td>
<td>1.3</td>
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<td>1.3</td>
<td>3.8</td>
<td>1.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

The same occurs in the yogurt category (Table 4), which shows the presence of the double jeopardy pattern, noting that the average number of purchases (third column) varies much less between brands compared to the participation figures (second column), also tend to be a lower figure for brands with fewer buyers; (that is, their participation); and therefore the high and low figures tend to align in the two columns, generating the double jeopardy phenomenon.

Table 4. Double jeopardy in the purchasing of yogurt

Therefore and starting from these figures, it is important to highlight that the hypothesis: 'All things being equal, small brands (less popular or with less market share) generally retain less loyalty among their customers than large brands (more popular or with greater market share) among theirs.' Finally, it should be added that the data in the third column (which describes the number of purchases per family) are also interpreted as an indicator of brand loyalty.

5. DISCUSIÓN Y CONCLUSIONES

This research shows that the double jeopardy phenomenon is present in the Mexican market, specifically in households of the State of Morelos. This result, such as those obtained by Baldinger and Rubinson (1997), Donthu (1994) and Claude (1973), and recently in the studies carried out by Wilson, D. and Winchester, M. (2019). Dawes, J., Bond, A., Hartnett, N. and Sharp, B. (2017) and Tarkiainen, A. and Ellonen, HK (2015) show that when this double jeopardy phenomenon exists, the importance of having loyalty programs to attract and preserve customers is highlighted. This suggests that, if less popular brands increase their market penetration, they could have greater loyalty.

This study also reports minor deviations and exceptions, as mentioned above, all consumers are different and generally tend to behave consistently to the segment they belong, further analysis revealed that this is due to fixed loyalties of few families towards certain brands, something very characteristic in the municipalities of the state of Morelos; a similar explanation also applies to Gravitia and Rivero cereals with Average Purchase Rate (APR) 1.40 and 2.00 respectively; as well as for the Nutrileche and Vaca...
Blanca yogurt brands with APF 1.25 and 2.00 respectively; in fact, these results are fortunate deviations, they are opportunities for the marketing teams of these brands, because its interpretation should be focused on increasing its market share, in other words, expand their customer base, it is not enough to sell more units, but now it would seem more appropriate to sell to more customers.

Other exceptions are also presented evidently in the investigation, although without many implications for marketing strategies. For example, generic or dealer brands are acquired with an apparently high frequency of purchase; however, this is an “accident” explained by the retailer’s category management (product portfolio strategy).

6. REFERENCIAS:


