

# Shrinkflation from Consumer's Perspective: An Exploratory Study Using Crystal Products in Egypt

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**Abstract: Purpose:** This research aims to understand what happens when consumers do notice unit size decrease. Furthermore, if the consumer will still be loyal to the product after the downsizing or not.

**Design/methodology/approach** – This paper depends on a sample of 74 respondents, employing a drop-off methodology, with structured and self-administered questionnaire to measure consumer attitudes regarding three dimensions; consumers awareness, customers' satisfaction, and consumers' acceptance of package downsizing, utilizing a five-point Likert scale measure.

**Findings** – The general findings show that the current consumers' attitudes toward shrinkflation is not highly favorable, indicating that a lot of work will be required from companies to maintain the customers loyalty. The study urged marketers and public policymakers in Egypt to pay more attention to the customers opinions and perspectives.

**Keywords:** Inflation, Consumer Perspective Index.

## INTRODUCTION

Education is a core of the public life, including cultural, which unites and cements the society, indicates the future development and ensures this development enables the society to have protected its competitive place in the global division of labor that maintains social stability. The system of education is a complex social instrument of solving social problems, modernization and optimization of public life, integration of the entire community, the continuity of the educational process throughout life, providing competitive advantage and appropriate future for each subject of the educational space.

The methodological basis of research are scientific notions of universal connection and mutual conditionalism of phenomena, the basis of which pedagogical artistry should be considered as a whole, which combines acting, directing skills, personal and professional quality, professional ability. For the content and structure analysis of pedagogical artistry of high schools teachers were used a system-structural, personal approach that allowed us to reflect the diversity of the studied phenomenon.

In the past, companies used Supersizing as a method to advertise the product and attract the customers; e.g, producing a 20% larger chocolate bar, or adding 10% more to the product; while nowadays, companies tend to use package downsizing or "Shrinkflation" to control the production costs, to enhance the quality of product and consumer's satisfaction (Felten 2012).

Shrinkflation is the process of reducing the package content, without a corresponding reduction in selling price, with keeping the package size and the appearance the same, or changing the package to hide the reduced content (Wilkins and Beckenuyte and Butt, 2016).

Package downsizing is considered normal these days, and you can find it in a lot of products; e.g., a Hershey's chocolate bar that was 226g is now 192g and its label reads "Giant bar." Some consumers are disturbed by this practice, thinking that food companies are misleading them, but in fact, the product information is written in the package, and consumers are just depending on the price as the main factor

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that drives their behavior while they are shopping. That makes the customer buy the same product over and over again without noticing the size shrinkage or lack of quantity.

on regard of these changes, marketers should be able to forecast consumers' perceptions of changes in packages size, and to make a win-win plan that improves company's profitability and ensure customers' satisfaction and loyalty.

The economic literature pays attention to this topic -not as much as other products' features- but still received much attention in developed countries, while much less attention in developing countries. This study aims to draw researchers' attention to this phenomenon and attempt to understand the consumers believe in Shrinkflation.

As the shrinkflation trend became more widespread these days, its presence in the domestic market became inevitable. Prior works had not interrogated what happens when consumers do notice the package downsizing; it was not a practical question to ask in the past because not a lot of consumers were noticing the changes. but today, it is clear that greater numbers of consumers are noticing, and are spreading the information to others.

This research aims to understand what happens when consumers do notice unit size decrease. Furthermore, if the consumer will still be loyal to the product after the downsizing or not. In light of the literature review, this study brings into question: Are consumers aware of Shrinkflation, and does it affect their loyalty to the product?

The current study is unique by the virtue of its nature, as it explores the customer awareness of Shrinkflation and customers loyalty to the product for the first time in Egypt. The study tries to make companies and policymakers to pay more attention to consumers perception of shrinkflation, especially in these difficult economic situations.

## **LITERATURE REVIEW**

In modern societies, businesses are expected to produce benefits for both themselves and society, in a way that improves the harmony between profit maximization and social responsibility (Windsor, 2006). Shrinkflation is very important as it directly relates to both firms and consumers, however, it received only limited attention of researchers especially in developing countries.

Gourville, Koehler (2004) and Cakır, Balagtas (2014) claimed that the package downsizing positively relates to firms' profitability. If consumers notice package downsizing, it might all go. When noticed before purchase, package downsizing can lead to less favorable attitudes toward the product (Kachersky, 2011), and when package downsizing noticed after purchase, it can lead to negative post-purchase behaviors such as brand switching, complaining and negative word-of-mouth (WilkinsandBeckenuyte and Butt, 2016). As a result, in order to avoid a negative consumer response, companies do not usually declare changes in product size (Kolk et al. 2012).

According to Çakır and Balagtas (2014), consumers are more sensitive to price changes than to package size changes, signifying that downsizing can be a practical strategy to increase prices indirectly to pass through rises in production costs. Levy, D. and Snir, A. (2013) believe that in the real-world consumers pay less attention to reductions in quantity than economists often assume.

Lennard et al. (2001) said that consumers do not process unit price information perfectly. They concluded- after interviews and in-store questionnaires- that consumers are unaware of volume indicators, such as weight of content or number of servings, and often count on the physical size of the package.

That leads to three hypotheses:

- H1. Consumers in Egypt are aware of the package downsizing.
- H2. Customers loyalty to the product in Egypt decreases after the package downsizing.
- H3. Consumers in Egypt are generally favorable toward the package downsizing.

## **RESEARCH METHODOLOGY**

A structured, self-administered questionnaire was developed by the current author to measure consumer attitudes toward package downsizing, focusing on a three major dimensions, each in a separate section as a main dimension related to the hypotheses. A five-point Likert scale of agreement was used for measurement, running from "Strongly disagree" to "Strongly agree", with a Neutral category for scale midpoint (1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree). As the measuring

statements were all positively phrased, the measurement logic continues that the higher the attitude mean score the more favorable the attitude and vice versa.

The researcher adopted Alsamadi,S and Khizindar,T (2015) research approach methodology, Several statistical tools were used for data analysis and hypotheses testing, including descriptive statistics, and "ANOVA" (i.e. one-sample t-test). The Likert measuring scale is divided into three scoring areas. As the length category for the scale is 1.333, resulting from  $1-5/3=1.333$ , the three categories are: low favorable attitude [ $1.000 \leq \text{mean score (MS)} \leq 2.333$ ], medium favorable attitude ( $2.333 < \text{MS} < 3.666$ ) and high favorable attitude ( $3.666 \leq \text{MS} \leq 5$ ). To scientifically testing the hypotheses, the rule is to use the value 3 as a critical value in the Likert scale, as it is the scale midpoint. That is, if the attitude mean score equals to or exceeds 3 ( $\text{MS} \geq 3$ ), we can accept the hypothesis, assuming favorable attitude, while we cannot accept it if (MS) falls below 3 ( $\text{MS} < 3$ ). One-sample t-test was further used to validate the difference between the relevant mean score and the criterion value (3) based on a statistical significance level of 5 per cent ( $\alpha \leq 0.05$ ). (Alsamadi,S and Khizindar,T 2015).

## RESULTS

This study is based on an experiential investigation of a 74 usable sample. This study used a survey method to investigate the perception of Egyptian consumer on package downsizing. The "Crystal cooking oil" was chosen as a sample of a downsized product due to its familiarity and common use within Egyptian customers. The questionnaire was firstly prepared in the English language and translated into the Arabic language. This study is based on an empirical investigation of a total 66 usable questionnaires. Table 1 shows that total of 74 respondents, 64 (86.5%) were female, 10 (13.5%) were male. 41 (55.4%) were 18–29 years old, 30 (40.5%) were 30–49 years old, 2 (2.7%) were 50 - 64 years old, and 1 (1.4%) was under 18. There were no respondents from 66 years old or over. The most common level of education was bachelor's degree at 40 (54.1%). Other educational levels represented were 17 (23%) respondents were post-graduate degree, 14 (18.9%) with high school degree, 2 with diploma degree (2.7%), and 1 (1.4%) was less than high school. The employment status of 25 respondents (33.8%) were students, 21 (28.4%) were home-makers, 16 (21.6%) were full-time employees, 8 (10.8%) were part-time employees, 2 (2.7%) were retired, and 2 (2.7%) were unemployed.

Table 1: Demographic distribution of the study sample for Gender, Age, Education, and Employment statue.

Demographic variable	Frequency	%	
Gender	Male	10	13.5%
	Female	64	86.5%
	Total	74	100.0%
Age	under 18	1	1.4%
	18 - 29	41	55.4%
	30 - 49	30	40.5%
	50 - 64	2	2.7%
	65 or over	0	0.0%
	Total	74	100.0%
Education	less than high school	1	1.4%
	high school	14	18.9%
	diploma degree	2	2.7%
	bachelor's degree	40	54.1%
	post-graduate degree	17	23%
	Total	74	100.0%
Employment Status	Full-time employment	16	21.6%
	Part-time employment	8	10.8%
	Unemployed	2	2.7%
	Home-maker	21	28.4%
	Student	25	33.8%
	Retired	2	2.7%
<b>Note: N=74</b>	Total	74	100.0%

### First dimension (D1): consumers awareness

The analysis in table 2. shows that consumers were generally of medium favorableness, with an overall mean score for the whole dimension being in the medium favorable attitude category ( $2.333 < MS < 3.666$ ) and relatively low standard deviation value (0.972), indicating little dispersion around the mean. As seen in the table, all the statements were in the medium scoring area.

The lowest mean score was 2.851 relating to the statement "The price of Crystal Oil is proportional to its size", while the highest one was 3.662 relating to the statement "I noticed a reduction of package size from the first time of purchase". Obviously, this indicates overall medium satisfaction with respondents toward Consumers awareness. A view of this dimension, as a whole, shows that the overall attitudes were somehow favorable, with an overall mean score of 3.256 ( $MS > 3$ ).

According to the decision rule outlined earlier), we can generally accept H1, which states that "Consumers in Egypt are aware of the package downsizing." These results were further validated by one-sample t-test for the dimension as a whole, which revealed a relatively high t-value (28.79) with high statistical significance (significance 0.000). Obviously, the results of one-sample t-test support H1, as stated above.

Table 2. shows descriptive statistics for the attitude statements that were used to measure the first dimension of the study "consumers awareness" and the results of one-sample t-test.

Table 2: D1: Consumers awareness

Statement	Mean Score*	SD	Scoring Area**	t value	Sig. (2-tailed)
I noticed a reduction of package size from the first time of purchase	3.662		Medium favorable attitude		.000
The price of Crystal Oil is proportional to its size	2.851		Medium favorable attitude		.000
Dimension as a whole	3.256	0.972	Medium favorable attitude	28.79	.000

Notes: N = 74; \*maximum score = (5); \*\*low favorable attitude ( $1.000 \leq MS \leq 2.333$ ); medium favorable attitude ( $2.333 < MS < 3.666$ ); high favorable attitude ( $3.666 \leq MS \leq 5$ ).

### Second dimension (D2): Customers loyalty

In the same way, figures in the table 3. show that consumers were generally of medium favorableness about their loyalty to the product, with a general mean score for the dimension as a whole in the medium favorable attitude category ( $2.333 < MS < 3.666$ ) and relatively low standard deviation value (0.927), showing little dispersion around the mean.

Three out of five attitude statements in this dimension received medium favorableness according to the table, while the other two attitude statements were in the high attitude favorable category, with a mean score of 4.149, relating to the statement "I feel satisfied with the quality of Crystal Oil". Obviously, this reflects a better consumer satisfaction.

Whereas, the lowest attitude statement in this dimension, which received a relatively low mean score of 2.716 in this category, was relating to the statement "I will keep using Crystal Oil after knowing about downsizing". Clearly, this statement suggests that package downsizing may affect the customers loyalty. Meanwhile, all other aspects in this dimension were better in terms of attitude favorableness.

The overall attitudes in D2 as a whole were considered similar to those in the previous dimension, with an overall mean score of 3.457 ( $MS > 3$ ). According to the decision rule outlined earlier, we can generally accept H2, which states that "Customers loyalty to the product in Egypt decreases after the package downsizing."

These results were further substantiated by one-sample t-test for the dimension as a whole, which revealed a relatively high t-value (32.797) with high statistical significance (Significance 0.000). This means that the overall mean score for this dimension, as a whole, was significantly different from the criterion.

Table 3. shows descriptive statistics for the attitude statements in the second dimension of the study "Customers loyalty" and the results of one-sample t-test.

Table 3:D2: Customers loyalty

Statement	Mean Score*	SD	Scoring Area**	t value	Sig. (2-tailed)
I feel satisfied with the quality of Crystal Oil	4.149		High favorable attitude		.000
I use Crystal Oil constantly / my family uses Crystal Oil constantly	3.878		High favorable attitude		.000
I recommend my friends and acquaintances to use Crystal Oil	3.689		High favorable attitude		.000
I do not feel satisfied after knowing about the downsizing	2.851		Medium favorable attitude		.000
I will keep using Crystal Oil after knowing about downsizing	2.716		Medium favorable attitude		.000
Dimension as a whole	3.457	0.927	Medium favorable attitude	32.797	.000

Notes: N = 74; \*maximum score = (5); \*\*low favorable attitude ( $1.000 \leq MS \leq 2.333$ ); medium favorable attitude ( $2.333 < MS < 3.666$ ); high favorable attitude ( $3.666 \leq MS \leq 5$ ).

### Third dimension (D3): Consumers acceptance of package downsizing

The analysis in the table 4. shows that consumers were generally of medium favorableness about the package downsizing, with an overall mean score for the dimension as a whole being in the high favorable attitude category ( $2.333 < MS < 3.666$ ) and standard deviation (1.031). More specifically, the table shows that the highest mean score value was 3.878, relating to the statement "Companies should reveal the information related to reducing the size of the product to the consumer". The other mean score statement in this dimension, which scored 2.608, relating to the statement "Reduce product size while keeping its price is acceptable to me", was close to the higher limit of the lower attitude category. In general, this dimension reflects inferior overall satisfaction. Obviously, the figures in the table reveal slightly positive attitudes toward package downsizing, with overall mean score of 3.243 ( $MS > 3$ ) for the whole dimension. According to the decision rule outlined earlier, we can generally accept H3, which states "Consumers in Egypt are generally favorable toward the package downsizing.". These results were more improved by one-sample t-test for the dimension, as a whole, which showed a high t-value (28.114) with high statistical significance (Significance 0.000). This means that the overall mean score for this dimension, as a whole, was significantly different from the criterion value, which confirmed the support for H3.

Table4. shows descriptive statistics for the attitude statements in the third dimension of the study "Consumers acceptance of package downsizing" and the results of one-sample t-test.

Table 4: D3: Consumers acceptance

Statement	Mean Score*	SD	Scoring Area**	t value	Sig. (2-tailed)
Companies should reveal the information related to reducing the size of the product to the consumer	3.878		High favorable attitude		.000
Reduce product size while keeping its price is acceptable to me	2.608		Medium favorable attitude		.000
Dimension as a whole	3.243	1.031	Medium favorable attitude	28.114	.000

Notes: N = 74; \*maximum score = (5); \*\*low favorable attitude ( $1.000 \leq MS \leq 2.333$ ); medium favorable attitude ( $2.333 < MS < 3.666$ ); high favorable attitude ( $3.666 \leq MS \leq 5$ ).

## CONCLUSIONS AND IMPLICATIONS

Although Shrinkflation is being a widespread practice, it is so important to understand the consumers perception of this phenomenon, particularly in the context of developing countries, where consumers perception is not usually taken in consideration. The overall findings of the current study suggest that consumer perception of shrinkflation was medium favorable in Egypt, with the lowest favorable attitude was particularly noted for customers' acceptance of packaging downsizing. However, this appears to call

for reconsideration to the way that companies deal with its high production costs without affecting the customers, especially in this difficult economic condition. Perhaps, looking at the experience of developed countries regarding the Shrinkflation would provide a win-win situation to both companies and customers. Partly, at least, this could improve the level of understanding of how consumer sees the package downsizing, and how that affect the customers loyalty to the product. Perhaps, the companies and firms will pay more attention to the customers opinions and perspectives. Today, the discussion of the findings of the current study has focused attention on consumer attitudes toward downsizing one specific product. However, as the data collection is limited to one country – Egypt – generalization to other contexts may not be possible, given different regulatory, political, socio-cultural and economic environments.

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