

'My Mind Starts Craving' - Impact of Resealable Packages on the Consumption Behavior of Indian Consumers

* *Varun Nayyar*

Abstract

Packaging of products has started nudging the consumers with its dynamic attributes, where resealable has become one of the distinctive attributes which has modified the consumption behavior of Indian consumers. A store shelf of every retail outlet has the presence of different types of packaging of products, but the major advantage of the resealable attribute is that it can repack the product in order to prolong the shelf life of that particular item warehoused inside the resealable packaging. Here, the research intended to gauge whether this particular feature had any implication on the freshness and whether it reduced the consumption level of high calorie products warehoused in these types of packaging. This study tried to uncover the behavioral evidence of consumers related to their self-regulation in their consumption patterns for high calorie products when offered in resealable packaging in comparison to non-sealable packaging with the assistance of research techniques like chi - square & *F* - test. The results revealed that resealable attribute of packaging limited the compounded consumption pattern of consumers with respect to junk food (chips in the present study). This research also suggested mindful measures for corporate players to offer packaging which culminates in creating good nutrition and a healthy environment for the consumers.

Keywords : resealable, consumption, packaging, chips, non-sealable, health

Paper Submission Date : July 2, 2018 ; Paper sent back for Revision : October 7, 2018 ; Paper Acceptance Date : October 10, 2018

Packaging in this competitive era has become one of the powerful tools for organizations to differentiate their products from their competitors. For Indian consumers, it has even become a sword which protects them in terms of unhealthy purchase actions. No doubt, packaging nowadays has become a source of convenience and sophistication, which influences and generates needs for packaged goods available for consumption. A package is not only the external vessel for the product which shields, conserves, and provides grip to the product, but it also assists in commercialization, supervision, and storage for the same. Packaging also plays a major role in attracting consumer attention and influences their purchase intent. Packaging has earned major prominence due to its increased importance among consumers while performing their final buying action in different retail malls, kirana shops, and departmental stores, even its occurrence has now become critical due to which it has now become a tool which can enhance the reach of products among the purchasers of specific products (Orth & Malkewitz, 2006 ; Underwood & Klein, 2002).

In the era of self - service, most of the major retail shops have fragmented packaging - an ideology which helps in persuading consumers to buy the product before even recognizing the brand. Solanki and Sheth (2015) examined the influence of nutritional information printed on the packaging of ready to eat food products and their impact on the buying behavior of consumers. But as per Chowdhury et al. (2014), public health care activities and promotional programs have not been so effective and have failed in slowing down the succession of the obesity rate among the young generation. Conventional interventions, such as changes in labeling, education, and higher

* Assistant Professor, IKGPTU / Apeejay Institute of Management Technical Campus, Rama Mandi - Hoshiarpur Road, Jalandhar - 144 007, Punjab. E-mail: varunnayyar90@gmail.com

taxation through various health campaigns have not been futile in guiding consumers toward healthier food items.

Packaging attributes always cater to market segments in increasing consumer awareness and product manufacturers' profit margin, like resealable feature or attribute of packaging now days is universally accessible on store shelves of retail outlets. Active packaging is chosen to enhance conventional packaging, where the resealable packaging attribute is a common system that is available in the form of zip-to-close plastic strips, adhesive strips, container lids, etc. (Yam, 2010).

In the past decades, consumption of food got reformed due to changing trends of social and economic environment as well as in the eating lifestyles of people. Change in working patterns, increased employment of women, lack of time, income growth, and several other factors led to the trend of fast food, convenience foods, and ordering food from outside (Petzoldt, Joiko, & Menrad, 2008). Also, urbanization has ensured increased consumption of packaged and processed food. Customers are now in quest of foods which are available in packages on the shelves of retail stores. Deng and Srinivasan (2013) claimed that food ingestion is often complicated to monitor, as most of the consumers stress on choice of food rather than their consumption degree in order to adopt a healthy diet for their body. Packaged foods in the recent past have surged to clutch the largest market share of food in developed countries and there is immense opportunity for an increase in their market share in developing countries as the per capita income of consumers is increasing in these nations. As consumers have started eating irregular food snacks on different intervals rather than continuing the traditional way of eating to a maximum limit under one roof, the resealable attribute of packaging has been considered as a source of convenience for these consumers.

According to De Bondt, Van Kerckhove, and Geuens (2017), the attractive appearance of resealable packages on the food in the market might also stem from producers' desire to safeguard the attractiveness of their supersized packages. However, the majority of packaged products advertised through different media types continue to be promoted without taking into consideration the aspects of human health. As a result, public health officials continue to call for development to address boundaries of the CFBAI, which includes marketing of products with special consideration on its packaging and licensing in order to provide higher nutrition standards for foods that can be advertised to consumers (Schwingshackl & Hoffmann, 2015). This way, consumers might be less hesitant to buy supersized packages as the resealable feature can help to preserve the freshness of the food products inside. The key advantage of the resealable attribute thus is its talent to reclose the package in order to prolong the shelf life of the food product.

Review of Literature

Numerous studies in the past have focused on packaging perception, its specific design, its impact on environment - like the role of packaging design and its effects on visual appreciation of products (Celhay & Trinquescoste, 2015) ; price and quality beliefs (Orth, Thiele, & Palsson, 2010), genuineness (Binninger, 2017) ; and taste imprints (van Rompay, Deterink, & Fenko, 2016). According to van Rompay, Deterink, and Fenko (2016), packaging features highlight the uniqueness of the product. Quality decisions are principally swayed by product characteristics echoed by packaging, and these have played a vital role in the foundation of brand likings. If the packaging of the product talks of high quality, consumers normally presume that the product also has high worth, and vice versa, low quality packaging also signifies "low quality" perception for the products among consumers (Underwood et al., 2001). Even the significance of packaging in this modern era not only enhances brand image, but also impacts the psyche of the consumers. This should be counted as a candid indication for manufacturers to create those packaging designs, which are at par with the liking of the consumers (Giri & Sharma, 2012).

Accordingly, previous research focused on understanding the influence of physiological and non-physiological signals of humans that influenced their choices while buying healthy and unhealthy food (Polivy & Herman, 2002 ;

Wansink, 2004). Conversely, consumers' body weight conditions are highly influenced when they eat high calorie products in one go rather than what they consume in their daily meals (Smith & Ditschun, 2009). Owing to the delayed response to the gastrointestinal system, customers tend to carelessly continue to eat until they overeat, or until they encounter an interruption that draws attention to their consumption (Cheema & Soman, 2008). As observed, a more restraining consumption norm has one chief contributing factor of consumers' capacity to self-regulate (Baumeister, 2002), even customers are more probable to meritoriously regulate their ingestion of high-enriched calorie food products when these foods come in a resealable vs non-sealable package. Previous research has revealed that more deliberation in the course of consumption makes consumers more likely to resist the immediate rewards that high-enriched calorie foods offer (Strack & Deutsch, 2004). Deng and Srinivasan (2013) revealed the impact of package resealability on the consumption of snacks offered in small-sized units in comparison as the consumption to high-sized units of snacks seemed more problematic to monitor.

Objectives and Hypotheses

This study in totality focuses in knowing the ability of self-regulation on eating habits while using resealable packages in comparison to sealable packaging and thus resulting in lower consumption of high-enriched calorie products. To achieve the same, the following objectives were framed for the study :

- ↳ To study the consumption behavior of consumers while offering high-enriched calorie products in a resealable / non - sealable package.
- ↳ To study the effect of resealable attribute of packaging on the freshness of the products.

To attain the aforesaid objectives, the following hypotheses were shaped :

- ↳ **H01** : There is no effect on the consumption behavior of consumers while offering high-enriched calorie products in a resealable / non-sealable package.
- ↳ **H02** : Freshness of the product has nothing to do with resealable attribute of packaging.

Research Methodology

The primary aim of this study is to scrutinize the intentions related to the driving force while purchasing resealable high calorie packaged goods in comparison to non-sealable package. Also, resealable attribute of packaging limits the compounded consumption pattern of consumers related to high-calorie junk food.

To continue with the research, 141 Indian consumers having age ranging in between 18-25 years with majority of them pursuing their academic degrees in colleges of Northern India with $M = 31.33$, $SD = 8.20$ gave their feedback through online form stack created through Google Drive (Table 1). Data were collected from these consumers in between October 2016 - January 2017. To know their motives, statements were framed and assigned randomly related to the resealable packaged attribute.

Table 1. Respondents' Demographics (Mean \pm SD)

| Demographic Attribute | Non-Sealable | Resealable |
|-----------------------|---------------|------------------|
| Gender (M/F) | 38/22 | 51/31 |
| Education | 32 \pm 10.3 | 31.22 \pm 2.13 |
| Income | 24 \pm 11.1 | 27.22 \pm 5.46 |

Analysis and Results

Rolls, Roe, Kral, Meengs, and Wall (2004) concentrated on the serving size of packaged food products, where high calorie products, if served in small packages in comparison to large size packages, created lesser obstruction in the consumption behavior of that particular food item. So, the key information that I tried to gain while drafting statements on the basis of previous research was to assess consumers' purchase intent and consumption blueprint while consuming these packaged products. In order to frame the same, the consumers were asked to rate 20 statements related to their purchase intent and appetite level on a 5 - point Likert scale.



Afterwards, they were interfaced with the image of resealable as well as non-sealable package of high calorie food products, that is, chips (refer Figure 1). The respondents were asked to imagine a situation : While shopping groceries at a retail mall, visualize that you end up at the snack's division and you see resealable chips packaging and non-sealable chips packaging. The respondents were impulsively probed to sum up their final purchase intent for the chips in order to find out the consumption pattern (percentage of consumption) of packaging of chips in one go, and how much they are going to save for further consumption in case they were exposed to one full container or a bag of high calorie packaging of chips. Intentional consumption pattern of the consumers was calculated by using one of the measures of central tendency, that is, mean related to both of the items subsequently after noting the second consumption pattern (i.e., 100% – % surplus) ($\alpha = 0.77$). The probability that the respondents would consume the entire bag in one sitting was also judged on a 5 - point Likert scale (1 - “*highly agree*”, 5 - “*highly disagree*”). Next, the degree to which the respondents liked the chips and the product's seeming freshness, consumption, and taste (good/bad) were also ascertained on a 5 - point semantic differential scale. After removing the third and fourth items, the internal validity of the scale was gauged ($\alpha = .69$) and the summated scale was premeditated. Education, income, and socio-cultural information were grouped while drafting the questionnaire.

The major theme of the research introspects the consumption level of high calorie packaged products, that have low nutritious value, and whether they are considered on health measures. On the basis of the sample, ANOVA *F*-test was applied to refer and check whether the mean value of the sample, that is, resealable /non-sealable

Table 2. Consumer Consumption Behavior

| Packaging Value | Packaging Attribute | | Chi-Square | Significance |
|------------------------|-------------------------------|-----------------------------|-------------------------|--------------|
| | Non-Sealable (<i>N</i> = 69) | Resealable (<i>N</i> = 72) | | |
| Freshness of Product | 5 | 24 | $\chi^2(1,140) = 20.32$ | $p = 0.003$ |
| Consumption of Product | 7 | 28 | $\chi^2(1,140) = 22.44$ | $p = 0.001$ |
| Taste of Product | 5 | 13 | $\chi^2(1,140) = 18.01$ | $p = 0.001$ |

Table 3. Statistical Values

| Statistical Values | <i>M</i> _{Freshness} | <i>M</i> _{Consumption} | <i>M</i> _{Taste} |
|--------------------|-------------------------------|---------------------------------|---------------------------|
| Mean Value | 4.06 | 5.67 | 6.66 |
| <i>SD</i> | 1.56 | 1.42 | 1.72 |
| <i>F</i> (1,140) | 7.89 | 16.22 | 11.36 |
| Significance | $p < 0.010$ | $p < 0.015$ | $p < 0.022$ |

packaging differs from the mid value of the scale or not. It will also demonstrate whether the respondents undeniably liked chips or not.

The respondents (Table 2) were asked to evaluate their purchase intent on freshness, consumption, and taste of the packaged chips. Wansink (2004) studied the effect of packaging attributes, that is, resealable on the multiple consumption occasion of a particular product and even from the current study, it is evident that the consumption volume of a high calorie product, that is, chips (refer Figure 1) is impacted by the resealable attribute of packaging. This reveals that H01 is rejected, which depicts that consumption behavior of consumers gets effected while purchasing high - enriched calorie products in a resealable / non-sealable package.

Chandon and Wansink (2002) observed that eating tendency of consumers decreased for high calorie products while opening a resealable package compared to when it was non - sealable. Even from the current study, it is evident that numerous respondents gave higher preference to freshness, taste, and consumption of a high calorie packaged product. Also, the results of one - way ANOVA (Table 3) provide preliminary indication for the hypotheses formulated for the study. That is, high calorie packaged product's freshness ($F(1,140) = 7.89$, $p = 0.010$), the capacity to control consumption of a high enriched calorie food ($F(1,140) = 16.22$, $p = 0.015$), and lastly, food taste ($F(1,140) = 11.36$, $p = 0.022$) are linked with the resealable attribute of packaging. This again reveals that hypothesis H02 is rejected as the freshness of the product has direct linkage with the resealable attribute of packaging.

This study also draws attention towards restriction in the consumption pattern of a high enriched calorie packaged product (chips) when they are consumed in resealable package in comparison to non-sealable package. The results also reveal that the respondents were likely to consume an entire bag of chips in one go if small size quantity was provided in either a resealable or non-sealable package. However, the breadth of this current study has no substantial evidence concerning the absolute intended consumption of a product offered in a resealable / non-sealable package. However, the respondents did provide their inputs that consumption levels differ for a high calorie product when it is offered in resealable packaging in comparison to non-sealable packaging.

Discussion and Conclusion

Conventional interventions, such as changes in labeling, education, and higher taxation through various health campaigns have not been futile in guiding consumers toward healthier food items. The study demonstrates that the resealable attribute of packaging curbs as well as aids in self-regulating the consumption of high enriched calorie

foods. The current study conceals the intentions for using resealable packaging in comparison to non-sealable packaging for a high enriched calorie food, that is, chips. Not only has the study highlighted the major advantages for using resealable packages, but it also highlights its impact on the freshness of a product. Consumers indeed have no limit when taste comes into picture, but restraint is visible in the consumption pattern for the same food when it is served in a resealable package in comparison to a non-sealable package. A different clue that is veiled in the results is related to prolonged conservation of food which is offered in resealable packaging by the corporate houses and also the direct association of the same in sustaining the freshness when the same is consumed on multiple occasions in the future. If linked with health issues, the resealable attribute is the only benchmark that can benefit the human mind in monitoring the consumption of non-nutritious high calorie food items, which will result in better health of human beings.

The current research also provides quantitative support, which claims that the resealable feature of a particular product can swing the consumption route from automatic to more intentional, which at last increases the consumers' self-regulation power and leads to controlled consumption of high calorie enriched food items. The results reveal that package resealability has a robust impact on consumption volume, while controlling for consumers' temporary state (i.e., hunger level and mood) and general ability to self-regulate. Hence, it can be concluded from the current research that resealable attribute of packaging is able to swing the consumption pattern, that is, high intake in first instinct to multiple consumption patterns for future related to the same food presented in resealable packaging.

Managerial Implications

Corporate firms, if they opt for resealable packages, can create a niche for those consumers who travel but hesitate to carry high quantity of food products due to lack of freshness. Company manufacturers and supermarkets need to deliberate beyond the mentality of packing products in non-sealable packaging so that human health should become their prime motive rather than profits. Also, it should be the prime responsibility of packaging manufacturers under corporate social responsibility to work on continuous innovation of their packaging attributes which must result in skirmishing the obesity issues of youth. The degree to which a corporate is competent to offer appropriate customer involvement will principally decide its triumph in the universal market place. Even enhanced freshness of products with the resealable attribute of packaging can result in higher profits for corporate houses, if the same is promoted rigorously among Indian consumers.

Limitations of the Study and Scope for Future Research

The results, no doubt, reveal that resealable packaging has an effect on the consumption pattern, which even controls appetite, freshness, and provides a lot more convenience to consumers. But still, chips - the food product used for the research - might have been preferred the least as a brand in comparison to competitors. Also, the sample of 141 chosen respondents is not that large to generalize the results for pan India consumers. In developed markets, it has been confirmed that packaging of a product and brand recognition are prevalent sources, which always encourage customer purchase intent; however, the same is missing in those demographic locations where consumers have low-income, so the above findings and results cannot be treated as an ideal for the whole population. Even the study has nothing to do with exact consumption of food products used for the study due to resealable attribute of packaging. Also, the situation in which a consumer is consuming the product plays a very major role, for example 'watching a movie' vs 'attending a meeting.'

In both these situations, consumption related to a particular product is impacted due to the presence of self-regulation in the second case and mindless eating in the first case. Packaging containing high calorie products, if

served with warning related to health issues, like printed on cigarette packages, can be a new direction to this existing research. The current study can even be conducted on food stuffs other than high calorie enriched products in order to check the impression of resealable attribute of packaging on their consumption.

References

- Baumeister, R. F. (2002). Yielding to temptation : Self-control failure, impulsive purchasing, and consumer behavior. *The Journal of Consumer Research*, 28(4), 670 - 676.
- Binninger, A. (2017). Perception of naturalness of food packaging and its role in consumer product evaluation. *Journal of Food Products Marketing*, 23(3), 251 - 266.
- Celhay, F., & Trinquécoste, J. F. (2015). Package graphic design: Investigating the variables that moderate consumer response to atypical designs. *Journal of Product Innovation Management*, 32(6), 1014 - 1032.
- Chandon, P., & Wansink, B. (2002). When are stockpiled products consumed faster ? A convenience - salience framework of post purchase consumption incidence and quantity. *Journal of Marketing Research*, 39(3), 321 - 335.
- Cheema, A., & Soman, D. (2008). The effect of partitions on controlling consumption. *Journal of Marketing Research*, 45(6), 665 - 675.
- Chowdhury, R., Warnakula, S., & Di Angelantonio, E. (2014). Association of dietary, circulating, and supplement fatty acids with coronary risk : A systematic review and meta-analysis. *Annals of Internal Medicine*, 160(6), 398 - 406.
- De Bondt, C., Van Kerckhove, A., & Geuens, M. (2017). 'My lips are sealed'- The impact of package resealability on the consumption of tempting foods. *Appetite*, 117, 143-151.
- Deng, X., & Srinivasan, R. (2013). When do transparent packages increase (or decrease) food consumption ? *Journal of Marketing*, 77(4), 104 -117.
- Giri, S., & Sharma, V. (2012). Food products packaging: A study of its effects on consumer behaviour. *Indian Journal of Marketing*, 42(5), 39 - 46.
- Orth, J. D., Thiele, I., & Palsson, B. Ø. (2010). What is flux balance analysis ? *Nature Biotechnology*, 28(3), 245 - 248.
- Orth, U. R., & Malkewitz, K. (2006, July). Packaging design as resource for the construction of brand identity. In *Proceedings of 3rd International Wine Business Research Conference*. Retrieved from <http://academyofwinebusiness.com/wp-content/uploads/2010/05/Orth.pdf>
- Petzoldt, M., Joiko, C., & Menrad, K. (2008). *Factors and their impacts for influencing food quality and safety in the value chains*. Book abstract of University of Applied Sciences -Weihen Stephan: Wissenschaft Zentrum Straubing, 239.
- Polivy, J., & Herman, C. P. (2002). Causes of eating disorders. *Annual Review of Psychology*, 53(1), 187 - 213.
- Rolls, B. J., Roe, L. S., Kral, T. V., Meengs, J. S., & Wall, D. E. (2004). Increasing the portion size of a packaged snack increases energy intake in men and women. *Appetite*, 42(1), 63 - 69.

- Schwingshackl, L., & Hoffmann, G. (2015). Diet quality as assessed by the healthy eating index, the alternate healthy eating index, the dietary approaches to stop hypertension score, and health outcomes : A systematic review and meta-analysis of cohort studies. *Journal of the Academy of Nutrition and Dietetics*, 115 (5), 780 - 800.
- Smith, J. M., & Ditschun, T. L. (2009). Controlling satiety: How environmental factors influence food intake. *Trends in Food Science & Technology*, 20 (6-7), 271- 277.
- Solanki, S., & Sheth, J. H. (2015). Healthy food selection: The role of nutritional information of packaged foods on consumers' purchase intentions. *Indian Journal of Marketing*, 45(9), 37-54. doi:10.17010/ijom/2015/v45/i9/79807
- Strack, F., & Deutsch, R. (2004). Reflective and impulsive determinants of social behavior. *Personality and Social Psychology Review*, 8 (3), 220 - 247.
- Underwood, R. L., & Klein, N. M. (2002). Packaging as brand communication : Effects of product pictures on consumer responses to the package and brand. *Journal of Marketing Theory and Practice*, 10 (4), 58 - 68.
- Underwood, R. L., Klein, N. M., & Burke, R. R. (2001). Packaging communication: Attentional effects of product imagery. *Journal of Product & Brand Management*, 10 (7), 403 - 422.
- van Rompay, T. J., Deterink, F., & Fenko, A. (2016). Healthy package, healthy product ? Effects of packaging design as a function of purchase setting. *Food Quality and Preference*, 53, 84 - 89.
- Wansink, B. (2004). Environmental factors that increase the food intake and consumption volume of unknowing consumers. *Annual Review of Nutrition*, 24, 455 - 479.
- Yam, K. L. (2010). *The Wiley encyclopedia of packaging technology*. New York, NY: John Wiley & Sons.

About the Author

Dr. Varun Nayyar is an Assistant Professor / Head Training and Placement Officer (MBA) in Apeejay Institute of Management Technical Campus, Jalandhar, Punjab. He has been teaching management subjects for the past 12 years. He received his Ph.D. for research work in urban & rural buying behavior towards packaging of products in the year 2018. He has published 13 research papers on different marketing concepts.