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## THE EFFECT OF PRODCUT PERFORMANCE ON CUSTOMER SATISFACTION: CASE STUDY RAZAVI YEAST PRODUCT

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### ABSTRACT

In today's competitive market, companies are trying to keep their customers. In food industry gaining customer trust causes to have competitive advantages through customers. In this study, we examined the effect of product performance on customer satisfaction among bakeries in terms of Razavi yeast product in Mashhad. Data via questionnaires among 1955 randomly selected bakeries used brand Razavi were collected. Results showed some components of designed, internal and external properties of yeast product of Razavi brand had a significantly positive effect on customer satisfaction.

**Keywords:** Product Performance, Customer Satisfaction, Yeast, Razavi

The companies with targeted programs can evaluate customers to measure the quality of products and services. Customer satisfaction management is a key element to study the quality of product performance (Zeithaml et al 1990). Product performance can affect customer satisfaction and ultimately lead to loyalty (Oliver 1980). In this study, we examined the effect of product performance on customer satisfaction within the yeast product of brand Razavi in Mashhad. Ulrich and Eppinger (1995) have defined product performance based on how well a product is able to provide practical application of the final plan. According to Hobka and Eider (Osteras et al 2006) products performance components are classified in three categories: 1) Features designed for products (for yeast; swelling power and speed, improving aroma, flavor and nutrition properties of bread), 2) internal properties (for yeast, shape, color, maintainability), and 3) external properties (for yeast, safe, sustainable, beautiful, stylish and varieties of packaging). Measuring product performance is an important part of product evaluation. Successful product performance has three aspects of concept. Financial measures, customer satisfaction, time-to-market or product lifecycle. Oliver (1980) has stated that the attitude to a product is a function of the initial attitude at the time of purchase and satisfaction with the transaction. When a customer purchases a product, satisfaction occurs in the process after buying. Thus successful product performance can make their customers happy (Selnes 1993). Identification and implementation of customer requirements and demands in the early stages of product development is important for the success of the product. To measure the success/failure of products, the first indicator is customer satisfaction. Product performance level can measure by customer acceptance of the product (Engelbrektsson and Soderman 2004). Positive relationship between performance and satisfaction is expressed by theory of rational expectations (Yi 1990). Levesque and McDougall (1996) stated customer satisfaction is defined as general attitude to goods and services. Yi (1990) suggests that customer satisfaction is influenced by two factors: 1) experience and 2) the expected performance of products and services. Customer satisfaction can be defined as expectations before purchase and performance which is understood after the purchase of products. Consumers are satisfied when product performance which is understood is better than expected, are unhappy when the expectations are more than the actual product performance and offset satisfaction is when product performance is compatible with expectations. Cronin and Taylor (1992) showed that direct assessment of standards of product performance is customer expectations. Customers to feel satisfaction or dissatisfaction may compare a number of standards. In fact, customers apply two different standards for evaluating their ideal product. Consumer experience along with knowledge of how to classify a

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product is important factor to judge product performance. Fornell (1992) suggested that satisfaction can be assessed as a general feeling. Moreover, he showed that comparison with the ideal product in customers mind occurs. Thus a customer may be satisfied and at the same time assessing product performance as intermediate compared to what it can be or should.

## **METHODOLOGY**

In this study, research methods are descriptive. The samples were selected by simple random sampling and all bakeries have an equal chance of being selected. Data collection methods in this study were self-made questionnaire and Likert scales in 5 options range. Research populations were bakeries consume Razavi yeast within the city of Mashhad. According to Morgan table among 1955 bakeries which consume Razavi yeast, 302 bakeries were selected as the sample size. Territory was the end of September till the end of February 2013. Product performance is the independent variable and the dependent variable is brand image. To determine the reliability of the study, at first a questionnaire was distributed among a 30-member preliminary sample and then using SPSS, Cronbach's alpha coefficient (equal to 0.806) were calculated. To analyze the data, descriptive statistics and inferential statistics were utilized. SPSS software was used for statistical inferences. To test research hypotheses one-group t-test used since the data are normally distributed.

## **RESEARCH HYPOTHESES**

**The main hypothesis:** Product performance affect customer satisfaction. (Product: Razavi Yeast)

### **The first sub-hypothesis: designed properties of Razavi yeast affect customer satisfaction. (Table 1)**

H0: Bread swelling power does not affect customer satisfaction

H1: Bread swelling power affects customer satisfaction

H0: Bread swelling speed does not affect customer satisfaction

H1: Bread swelling speed does affects customer satisfaction

H0: Enhancing the aroma and flavor of bread does not affect customer satisfaction

H1: Enhancing the aroma and flavor of bread affects customer satisfaction

H0: Improving the nutritional properties of bread does not affect customer satisfaction

H1: Improving the nutritional properties of bread affects customer satisfaction

### **The second sub-hypothesis: the internal properties of Razavi yeast affects customer satisfaction. (Table 2)**

H0: Yeast shape does not affect customer satisfaction

H1: Yeast shape affects customer satisfaction

H0: Yeast color does not affect customer satisfaction

H1: Yeast color affects customer satisfaction

H0: Maintainability of Yeast does not affect customer satisfaction

H1: Maintainability of Yeast affects customer satisfaction

### **The third sub-hypothesis: the external properties of Razavi yeast customer satisfaction. (Table 3)**

H0: safe packaging does not affect customer satisfaction

H1: safe packaging affects customer satisfaction

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H0: sustainable packaging does not affect customer satisfaction

H1: sustainable packaging does affects customer satisfaction

H0: beautiful and stylish packaging does not affect customer satisfaction

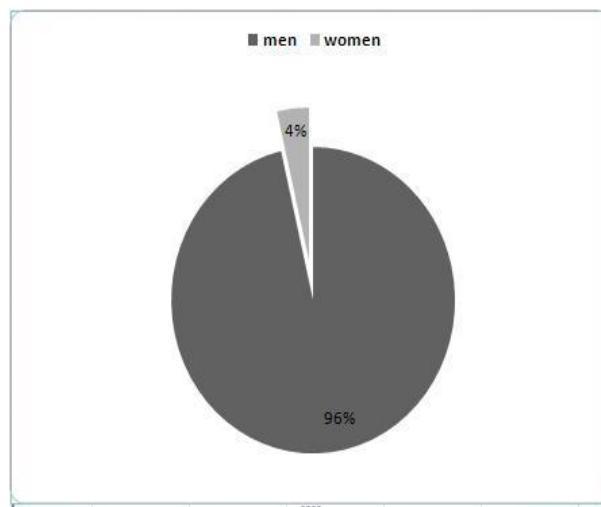
H1: beautiful and stylish packaging affects customer satisfaction

H0: variety of packaging does not affect customer satisfaction

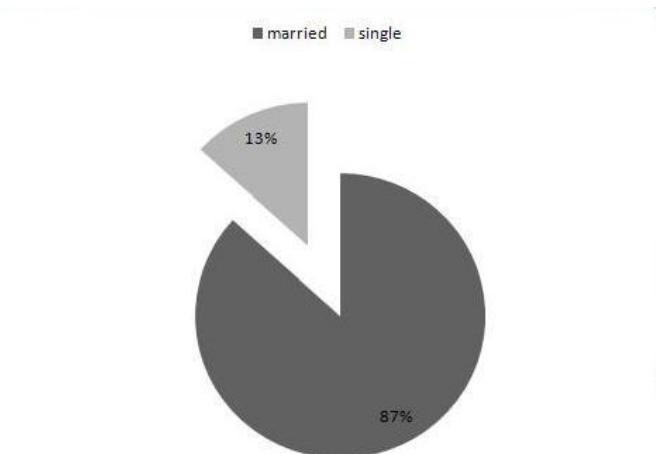
H1: variety of packaging affects customer satisfaction

## **RESULTS**

Demographic characteristics of respondents are reported in the following frequency distribution graphs. 1-Gender: Respondents are 96.35 percent men versus 3.65 percent women. Figure 2 shows most customers are men, with an abundance of 96 percent. 2- Marital status: Married respondents, 86.72 percent and 13.28 percent were single, which has been shown in Figure 3. 3-Age: The age distribution profile is presented in figure 4 which shows the age group 35 to 45 years is the most with 50.52 percent. 4-Education: In Figure 4 education level of respondents is provided.

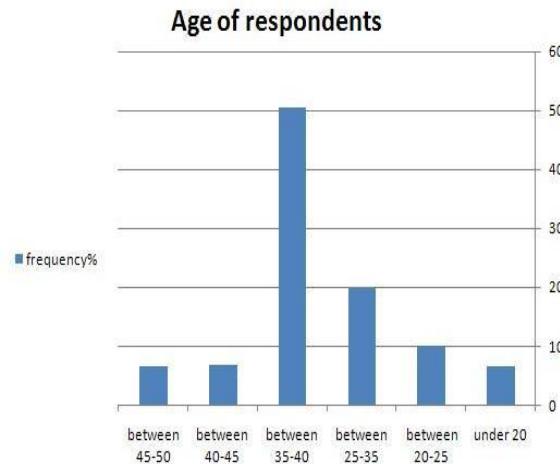


**Figure 1: Distribution of Gender**

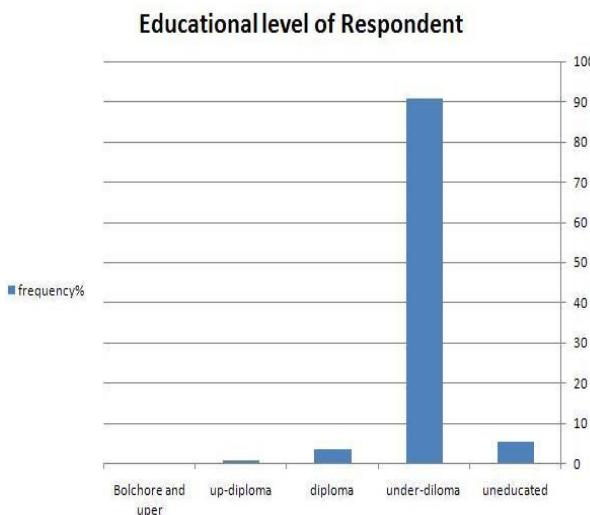


**Figure 2: Distribution of marital status**

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**Figure 3: Age of respondents**



**Figure 4: Education levels of respondents**

Results (Table 1-2-3) showed some components of designed, internal and external properties of Razavi yeast product had a significantly positive effect on customer satisfaction.

**Interpretation of Table 1:**

All four components of designed properties of Razavi yeast product according to T-test of table 1 are significant at alpha level of 1% (due to the first condition that the sig value is less than 0.01). So with 99% confidence the null hypothesis of all four components of designed properties of Razavi yeast rejected and we conclude that all four components affect customer satisfaction.

**Interpretation of Table 2:**

The first and third components of internal properties of Razavi yeast according to t test of table 2 are significant at alpha level of 1% (due to the first condition that the sig value is less than 0.01). So with 99% confidence the null hypothesis of the first and third component of internal properties of Razavi yeast rejected and we conclude that the first and third component affect customer satisfaction. But the second

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component of internal properties of Razavi yeast according to  $t=-0.984$  is not significant and the null hypothesis is accepted and the second component does not affect the customer satisfaction.

#### Interpretation of Table 3:

The first, second and fourth components of external properties of Razavi yeast according to table 3 are significant at alpha level of 1% (due to the first condition that the sig value is less than 0.01). So with 99% confidence the null hypothesis of the first, second and fourth components of external properties rejected and we conclude that the first, second and fourth components of external properties affect customer satisfaction. But the third component of internal properties of Razavi yeast according to  $t=-2.506$  is not significant and the null hypothesis is accepted and the third component does not affect customer satisfaction.

**Table 1: T-test of the first sub-hypothesis: Designed Properties of Razavi yeast affect Customer Satisfaction**

Variable	Number	Average	Standard deviation	Average expected	t	df	Sig
Dough swelling power	302	4.18	0.875	3.00	**22.29	301	0.000
Dough swelling speed	302	4.02	0.895	3.00	**19.75	301	0.000
Enhancing the aroma and flavor	302	4.10	0.729	3.00	**26.30	301	0.000
Improving the nutritional properties	302	3.96	0.828	3.00	**20.08	301	0.000

**Table 2: T-test of the Internal Properties of Razavi Yeast affects Customer Satisfaction**

Variable	Number	Average	Standard deviation	Average expected	t	df	Sig
Yeast shape	302	3.97	0.850	3.00	**19.76	301	0.000
Yeast color	302	2.93	1.228	3.00	-0.984	301	0.000
Maintainability of Yeast	302	4.05	0.941	3.00	**19.40	301	0.000

**Table 3: T-test of the external properties of Razavi yeast affects Razavi brand image**

Variable	Number	Average	Standard deviation	Average expected	t	df	Sig
safe packaging	302	3.96	0.828	3.00	**20.08	301	0.000
sustainable packaging	302	3.95	0.834	3.00	**19.74	301	0.000
beautiful and stylish packaging	302	2.82	1.217	3.00	-2.506	301	0.000
variety of packaging	302	4.10	0.739	3.00	**25.79	301	0.000

### CONCLUSION

The results show that all components of designed properties, maintainability and shape of yeast, aroma and flavor enhancement of bread, nutritional properties improvement, safe, sustainable and variety of packaging of Razavi yeast affect customer satisfaction while, color, beautiful and stylish packaging of Razavi yeast has no significant effect on Razavi customer satisfaction. Levesque and McDougall (1996) stated customer satisfaction is defined as general attitude to goods and services, and this agreed that some components of product performance affect on this general attitude. Positive relationship between performance and satisfaction is expressed by theory of rational expectations (Yi 1990) and this study's

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scope found some relations between product performance and customer satisfaction. To measure the success/failure of products, the first indicator is customer satisfaction. Product performance level can measure by customer acceptance of the product (Engelbrektsson and Soderman 2004), in this regards results of our research could be used to promote the effective components of product performance and targeting to gain the customer satisfaction.

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