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## Evaluating the relationship between customer loyalty and marketing strategies in Iranian biotechnological production companies

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### ABSTRACT

Customer industries such as biotechnological production should be viewed as a concern and disadvantage. At this study has attempted to assess the relationship between marketing strategies and customer loyalty to the brand of biotechnological production in the industry to be studied. Hypothesis test results showed that the integrated marketing strategy has a positive impact on customer loyalty to the brand. Focused marketing strategy has a positive impact on customer loyalty to the brand. Diversity marketing strategy has a positive impact on customer loyalty to the brand. Defensive marketing strategy has a positive impact on customer loyalty to the brand.

**Keywords:** marketing strategies, customer loyalty to the brand, biotechnological production

### INTRODUCTION

In the industrial era, there is no other business that is in need of marketing. It is imperative for any organization to gain competitive advantages. There is competition everywhere and not an exception in this case. Industrial companies need modern marketing to outdo the competition in today's competitive world. They can be seen as a mechanism to engage the buyer and seller in a long term relationship can be described. Hence, they could be used as a defensive marketing tool to keep current customers as well as an aggressive marketing to acquire new customers act .deeper than communicating with current customers is more widespread. Therefore generally lose a customer industries such as rubber and weakness should be seen as a concern [13].Maintain the loyalty of existing customers especially when they are mature markets, the profitability of a company is crucial, because loyal customers over time, become more profitable, firms incur costs to attract new customers in a competitive market will also increase profitability. Referred to, and may be willing to pay more for the value they receive [3].In the case of biotech products, marketing strategies and customer loyalty is very important.

### Biotechnologies

Biotechnology words for the first time in 1919 by Karl, in the concept of Applied Biological Sciences and the effects on man-made technologies were used (Thanks to the presentations of this working miss doctor Amine). In general, any act of human intellectual creativity, Improve the supply of various products with using animals, particularly through their manipulation at the molecular level, in this area, most importantly, cleanest and most economical technology of the present century, biotechnology is used. Biotechnology such words are vocal in recent years. This word true or false in the sense of things is to apply for people. Biotechnology is the application of a general definition of organism or organisms or biological processes in manufacturing or service industries is considered. The simple definition of a new phenomenon is as follows: Integrated use of biochemistry, Microbiology

knowledge and product technologies in biological systems due to the use of the interdisciplinary nature of science are studied. Another definition of biotechnology (biotech) has been described: Technique of living organisms to make or modify products, improving the quality and characteristics of microorganisms, plants or animals used for special applications. Biotechnology is an interdisciplinary science due to its inherent features. Application of such knowledge in cases where the combination of ideas within a multidisciplinary collaboration leading to a new system. Background and methodology of its own and finally, there are interaction between the different departments of biology and engineering. Biotech is in the central core and has two components: A component in achieving the best catalyst for a particular process or function and other system components or catalysts or reagents that act on it.

- 1- Genesis Biotechnology
- 2- Traditional applications of biotechnology
- 3- Biotech Products
- 4- Education in Iran
- 5- References

The use of microorganisms to produce foods such as vinegar, yogurt, and cheese dates back over eight thousand years ago. The role of microorganisms in the production of alcohol, vinegar was discovered centuries ago that A group of French businessmen in search of a way to prevent ferment wine and beer with them when they move around with ship. Those from Louis Pasteur, ask for help. Louis Pasteur discovered that yeast in a vacuum can sugars converted to alcohol. This process is called anaerobic fermentation. And also found that, rancidity and contamination of those activities acetic acid bacteria that converts alcohol into vinegar. Industrial applications of biotechnology are including plant and animal breeding; provide bread, yogurt and cheese and production of antibiotics (antibiotics), Human insulin and interferon Laboratory Science, And now with the advent of recombinant DNA technology, Genetic manipulation and transferring genes from one organism to another or in other words, genetic engineering, Capacity utilization of this technology has grown so increasingly. Currently, with respect the population growth and need to provide food for this population is increasing and there is special attention to agricultural biotechnology and high yielding resistant variety of transgenic crops such as, corn, rice, soybeans, tomatoes, wheat will produced and application of modern biotechnology techniques have been effective in increasing production of milk and meat. Provide hygiene and health of the population of more than six billion inhabitants of the planet, through the production of recombinant drugs and vaccines, access to low-cost treatment of diseases, and find treatments of non cure diseases, faster and more effective detection of various diseases, including genetic diseases are duties of medical biotechnology. The new approach to the environment in this century and consider it as a part of the national capital countries and need to preserve it with using biotechnology techniques are human concern of the present century. Effective removal of harmful environmental contaminants with use of microorganism's refinery pollution and using the techniques of genetic resources is including biotechnology applications in the field of environment. Biotechnology applications in field of industry cause the cost of production and less energy and Leads to less waste and most importantly, it leaves little adverse effect on the environment cause these technologies will be remembered as one of the cleanest parts of the industry. Biotechnology also with other ways to produce products that previously did not exist or it has been extremely difficult has made possible.

### **Marketing strategies**

In the process of planning and strategic management, the different procedures, such as preparing a mission statement, the vision, analysis, and evaluation of external environment, internal environment, you need strategies that emerged from the studies that have been done, you can compile. Before your statement, strategies for any organization, regardless of the field of activity, it may be chosen to be presented and it will provide you with all the necessary explanations with sufficient knowledge of to identify, evaluate and select strategies apply strategies that will help your organization stay up, grow and develop. [2]

Strategies, the following general categories, are classified:

1. Integration or integration strategy
2. Strategy focus
3. Diversity strategy
4. Defensive strategy

Each of these broad categories, represent another strategy to each individual to assess whether a CE.

### **Integration strategy**

In the world business, one of the common strategies for corporate growth, mergers with other companies. This strategy is so common in the world and is less common and the industry as a company that cannot protect them from it.

The integration strategy, a company trying to distributors, sales agents and agencies, raw material suppliers, contractors or competing companies, their ownership and control of the will. Integration strategies, as well as three vertical integration strategy to top-down strategy of vertical integration, horizontal integration strategies of division that will explain it .

#### A - Vertical Integration Strategies up Forward Integration

The meaning of vertical integration strategy, the company is making the purchase and distribution companies possess, distribute, sell, attempt to process and sell the product under a general distribution, called mastered and their control over the area, increase. If the production chain of a product or service would include the following steps:

- ✓ Analysis of market and customer needs
- ✓ Designing product / service
- ✓ Supply, logistics and purchasing
- ✓ Production / operations / service delivery
- ✓ Marketing
- ✓ Distribution
- ✓ Sale
- ✓ Services

Company or organization that vertical integration strategy, the uses to which the more seeds of this chain and can dominate the direct influence and control over the process more efficient and higher-end chain is.

Factors that make up an organization, some of these strategies as their strategic plans to consider, in the article "Guidelines for strategies" to come. Therefore, the selection of the strategies mentioned here do not.

When the company, this strategy is chosen and applied, makes the dealers, distributors, and vendors who have been in the sales and distribution network, are excluded, the company's inventory turnover increases, the inventory management Product pricing can be facilitated and co-operate more freely .

Imagine a manufacturer of food products such as tomato paste rather than sell them to wholesalers, warehousing and distribution systems of its products to retail stores or It by to reach the final consumer, in the provinces and cities across the country, the company buys wholesale and sells its distribution activities to be .Our company is a natural and logical that having such an extensive sales and distribution systems, such as those listed below have a significant competitive advantage, the business will :

1. So far things have been good wholesale business, the company will benefit
2. Can benefit from the distribution of all, regardless of their product offering and affordable prices than their rivals, to take action to increase sales, gain market share from rivals, and expel shall
3. with concrete factual information, reliable and up to date inventory of your products, manage inventory more effectively, to apply
4. Follow the rich and erosion of contents or delay or postponement in order to get rid of them is
5. Taking the distribution system for its products than rivals do not have control over the distribution system, a better supply and distribution problems in ways competitors can make
6. The closer to market, customer and final consumer feedback from more accurate and valuable information on market conditions and customer needs, tastes, and desires to use the information gained in market analysis and market research, they have to make changes and implement appropriate corrective actions in order to match the characteristics of your product closer to the consumer market with what is needed and wanted, the activities of faster, more effective efficient scheme to plan and implement the

#### B - Vertical integration strategy down Backward Integration

All company, product, production, raw materials are needed to build value-added processes, raw materials and input goods to the customer's purchase and receive a product, would good value.

Vertically down the company's strategy and chooses to apply, tries, firms or companies providing the required raw materials purchased and took ownership. To illustrate this strategy, consider a company that manufactures motor vehicles such as the Kia Pride. The company's diverse and engine parts manufacturers, parts purchased and provide them so that companies say part maker. A company produces cylinder blocks Pride offers and other parts, cylinder head, Bush, bearings, crankshafts, camshafts, connecting rods and. One company bought the cylinder block and the takeover of Pride, the strategy has run vertically down. In another example, a company can assume that the

refrigerator is produced, the company, a manufacturer of refrigerator compressors brought under his ownership, and he has run down a vertical strategy. The supply chain of a product above, have seen the implementation of this strategy, organizations, companies try to make the process more than they are already bought and controlled by themselves. The selection of these strategies by a company, and many factors can affect Mynahs a lot about this subject, may be filed .[3], [2],[7]

Similar to the requirement for vertical integration strategy for handling the above mentioned companies and financial management should be necessary and sufficient to manage the other the company to a supplier in owned for the to be . Implement this strategy properly, and considering the factors that lead to competitive advantage for the organization is following:

1. Assure the supply and availability of raw materials in terms of quality and quantity
2. Underlying profit industry that has been granted to provide
3. Control over the raw materials market and competitors
4. Employing a cost leadership strategy, the firm could profit from the sale of raw materials and the price of the final product regardless of its influence and to increase market share, reduce

#### C - Horizontal integration strategy Horizontal Integration

It is in this sense that the corporate strategy, the company bought its competitor and brings under its ownership. A company that manufactures food products such as pasta, pasta producers would imagine that a company would take another example, a single pasta, the pasta company to buy gold The strategy adopted by a company which is mainly when the context in which it operates, and the industry is growing, profitable, and is developing done a detailed plan to run. Integrated planning and execution of the activities of analysis and action, and requires a lot of concentration, perhaps under the appellation of this type of strategy is focused strategies.

Current product development will be achieved. With regard to existing or new products and markets, our focused strategies are divided into three categories which are as follows.

- Market Penetration
- Market Development
- Product Development

#### **Market Penetration**

The first series of strategies focused strategy, market penetration is. Meaning of market penetration and also the main objective of this strategy is to increase market share. This should increase the market share of current products and markets that are already in your appearance. Obviously, the implementation of such a strategy is needed to tackle and simply cannot be sold and promoted in the current competitive market share .Otherwise the growing market of the state and its residents, increase your market share decline in the share prices of other competitors, you will be achieved. [6]

#### **3. Strategies Diversity**

- |                                |  |
|--------------------------------|--|
| 1 - Variation of homogeneous   | Buy the Sony Ericsson by Mineral water production by zamzam.                 |
| 2 - Diversity of heterogeneous | Purchase of Motorola's mobile phone company Google                           |
| 3 - Variation of horizontal    | Company car February to be produced products such as shoes, sugar and...[2]. |

#### **Customer loyalty to the brand**

The inner dimensions of brand value are not well understood. Anker (1991) defines brand value as follows: "a set of brand assets and liabilities linked to a name and symbol of the value provided by a product or service to a company or its customers, the company has added or subtracted." Keller (1993 ) recognize the importance of brand value from a customer perspective defines the " value name business customers - positive circuit can cause a greater revenue, lower costs and higher profits may direct usage of the company's ability to deliver higher prices of consumer desires for new distribution channels , marketing communications effectiveness and success of the brand is authorized and opportunities. " Following these two concepts Anker and Keller and some subsequent results research has shown that consumers Morgan in 1996 against the products of different brands have different reactions show. These reactions can depend on consumer understanding of brands is original. They suggested that it is possible to use mark attractive. This proposal is in most cases an increase in sales. Today the brand has become a valuable asset. Some perspective on the consumer goods brands is that brands will realize the value. These values include the marking scheme, marking feature, similar to the brands, products or goods in connection with a branded case, branded and brands are the attractions. We believe that the marking of place, region or country that belongs to branded consumer of it.

Peter and Mark during its investigation in 2002 concluded that consumers' assessment of the image logo related to the success or failure of conformance or non- conformance or all the ingredients of the product. Consumers in the market are faced with a large variety of products under various brands. They can find much information about the product. This diversity can lead to increased competition between plants and also the head of confusion among consumers is normatively inappropriate. As the summary of product brands that provide information about its subsets play an important role.

The role of information and its impact on the image of a brand is very important. The device features an image of marking all of its branded products, expanding the production line or plant product innovations and the like are determined. What is the word most associated with suspicious behavior and consumer satisfaction, brand loyalty is a field. Brand loyalty or brand can be defined as the extent to which the customer has a positive attitude towards a brand, marking the extent of his commitment and intention to continue to define the future of shopping. Satisfaction or dissatisfaction directly affected brand loyalty the brand has collected over time and product quality is also affected (Maven and Minor, 2008, 344).

Behavioral approaches to brand loyalty, the actual buying behavior of consumers about the product measurements. Purchases are appropriate methods most widely used measures of brand loyalty. In this approach, all brands purchased a particular item designated for each consumer purchases of each brand are recognized. Then, depending on the kind of brand loyalty to a particular brand purchases arbitrary measure. For example, if you purchase more than 50 % over a period of time that is spent on a particular brand, the customer loyalty to brands they read it . Clear that behavioral approaches to brand loyalty, the all-or- nothing phenomenon. Instead, loyalty should be considered a continuum of complete loyalty to the brand's complete indifference is widespread. There is no loyalty, except loyalty is divided into several types.

In some cases of consumer loyalty is divided between the two brands. In other cases, consumers are generally loyal to a brand, but also have occasional reference to other brands However, in other cases; customers are completely indifferent to the distinction between brands.

Marketing point of view, the problem is that the measures of behavioral measures of brand loyalty, the reason to buy a particular brand from a consumer are not affected. Special marking is possible due to the convenience, availability or price of purchase. If any of these factors change, consumers may soon have to go to another brand. In such a scenario cannot be said that the idea implication is that consumer loyalty to the brand is more than just a passing interest and then you show loyalty to these brands. [14]

### **Theoretical framework of the research**

In this paper, the conceptual model uses the concepts of customer loyalty, brand strategy, marketing and design's Model relationship marketing strategies (integration strategy, focus strategy, diversification strategy, and defensive strategy) on customer loyalty to the brand review.

### **Hypotheses**

Hypothesis 1: Integrated marketing strategy has a positive impact on customer loyalty to the brand in biotechnological production of Iranian companies

Hypothesis 2: The positive impact of marketing strategy focusing on customer loyalty to the brand in biotechnological production of Iranian companies.

Hypothesis 3: The diversified marketing strategy has a positive impact on customer loyalty to the brand in biotechnological production of Iranian companies.

Hypothesis 4: Defensive marketing strategy have a positive impact on customer loyalty to the brand in biotechnological production of Iranian companies.

## **MATERIALS AND METHODS**

The method of this study is a causative one and in this way, the relationship between variables based on the target of this study was analyzed. Also this study based on the studies classification in terms of how to collect the data or in the other words, the design of this research, is a descriptive study which describes the properties of a sample and then generalizes these properties to the statistical society. These studies were classified into many groups but in this study, the measuring one is used. Through this study, the relationship between variables were described, predicted and analyzed. Therefore it can be said that the method of this study is descriptive – measuring and causative one and based on the defined target, it is a functional. The study population included all purchasers of tires in 90 brands of tires produced at Iranians who have bought into. Participate in the study sample size has been taken. The data

collected in this study is a questionnaire. Samples was determined using Cochran's formula is 267, but 300 questionnaires were distributed.

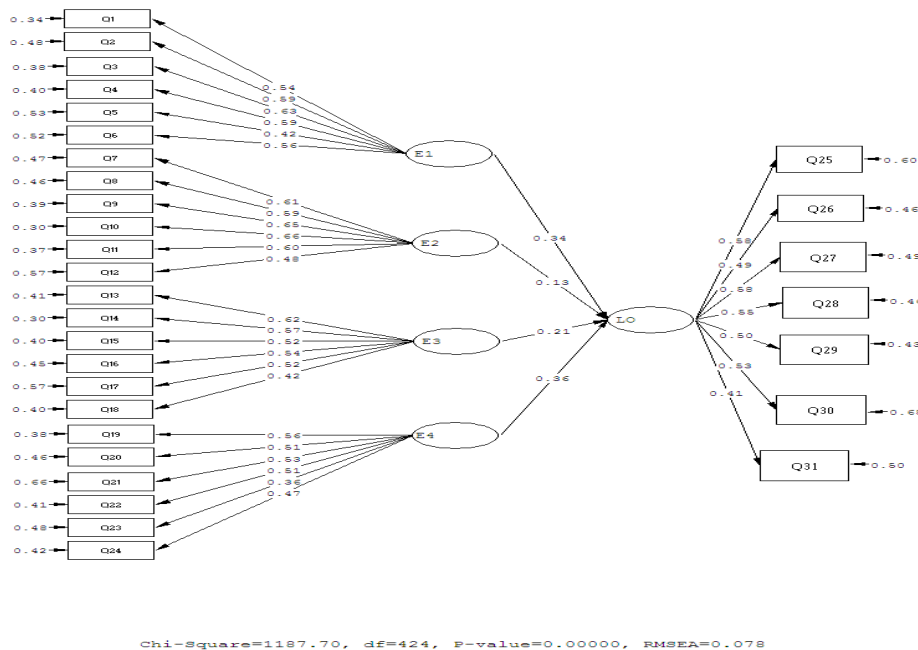
$$n = \frac{Z_{\alpha}^2 p(1 - p)}{\epsilon^2} = 267$$

**Data Analysis**

In order to analyze the data and test the hypothesis of structural equation modeling is used. Structural equation modeling such as linear statistical models to examine the relationship between latent variables (unobserved) variables and manifest (observed) is. Indicators of overall fitness as well as an index CFI and RMSEA is considered as the best indicator. Indicators of overall fitness to be place in ranges between 0 and 1. Coefficients higher than 0/90 is considered to be acceptable, although the level, P=0/05, is optional. This calculated value for the RMSEA index is equal to 0/078 to index CFI=0/93, which is indicative of the acceptability of the research model.

**Table 4: Index of the conceptual model**

| Index        | Amount | Acceptable fit        |
|--------------|--------|-----------------------|
|              | 2/336  | Value between 1 and 3 |
| <b>RMR</b>   | 0/036  | RMR <% 5              |
| <b>GFI</b>   | 0/975  | GFI >% 90             |
| <b>AGFI</b>  | 0/946  | AGFI >% 90            |
| <b>RMSEA</b> | 0/078  | RMSEA <% 10           |
| <b>CFI</b>   | 0/93   | CFI >% 90             |
| <b>IFI</b>   | 0/903  | IFI >% 90             |
| <b>NFI</b>   | 0/978  | NFI >% 90             |

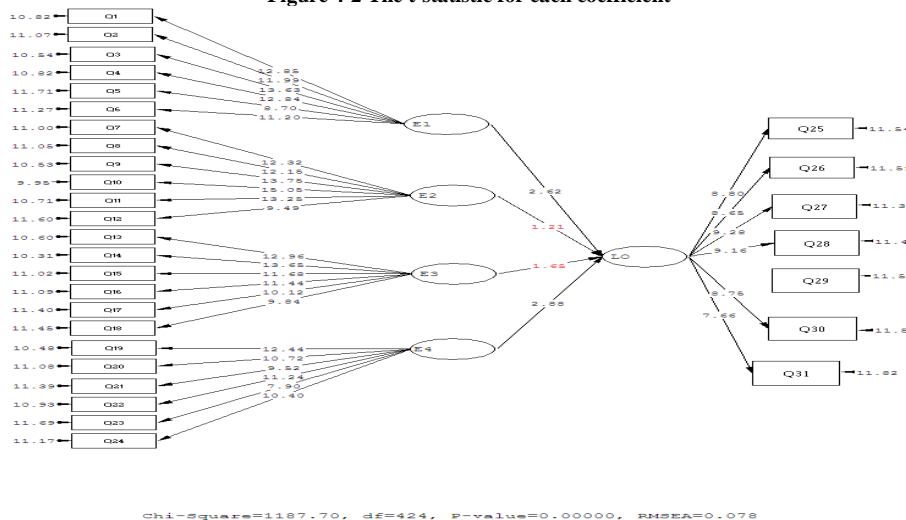


**Figure 4.1 the estimated value of each of the coefficient**

**Results of hypothesis testing**

In this section, we will model to determine the significance of the numbers, the numbers are significant, since this would be a 0/95 or error 0/05, followed by hypothesis testing, we used t test, and significant numbers will be larger than 1/96 and 1/96 are. This means that if the t -test and numerical -1/96 and +1/96 may be meaningless. The following model (Figure 4-2) are significant numbers obtained for the t -test and one study of relationships (measured with latent variables) and effects (both latent variables) with respect to the items listed in the charts below , the model fit indices are in good condition .

Figure 4-2 The t-statistic for each coefficient



| Results | T-statistics | Standardized coefficients calculated | Assumptions  |
|---------|--------------|--------------------------------------|--|
| +       | 2/62         | 0/34                                 | Hypothesis 1: integrated marketing strategy has a positive impact on customer loyalty to the brand in biotechnological production of Iranian companies       |
| -       | 1/21         | 0/13                                 | Hypothesis 2: The positive impact of marketing strategy focusing on customer loyalty to the brand in biotechnological production of Iranian companies.       |
| -       | 1/66         | 0/21                                 | Hypothesis 3: The diversified marketing strategy has a positive impact on customer loyalty to the brand in biotechnological production of Iranian companies. |
| +       | 2/88         | 0/36                                 | Hypothesis 4: Defensive marketing strategy have a positive impact on customer loyalty to the brand in biotechnological production of Iranian companies.      |

*Limitations and suggestions*

- Non-cooperation of a large number of clients completing the questionnaire.
- The data used in this study, only one sample is collected from a source within the company.
- Although it is accurate but it is possible that respondents did not answer the real and the ideal
- Sample (= N 270) can be considered as small crosses therefore recommended that a larger sample in a future issue of this study is to strengthen the variable in question. Larger sample can generalize the results of appropriate export strategies and models of performance possible.
- Another limitation of this study is that in a period of international economic sanctions against Iran. Most companies have been severely affected by the sanctions. Researchers can condition future research to develop economic and political sanctions.
- Most of the variables measured in this study due to lack of reliable data quality, comparable sales, profitability and other economic factors, and more. Expected that future research studies using more precise quantitative better results are obtained.
- Conceptual foundations of business and marketing is worthy, in its most comprehensive industrial companies to personnel be trained.
- According to the Government's overall policy in the field of economic development, on the basis of competitive advantage, manufacturing companies that produce and export is done.
- By creating infrastructure for e-commerce and culture in the community can benefit from the speed and electronic commerce in international markets to benefit.
- Training of managers and employees to provide up to date information can have a positive impact on the success of its marketing.
- Identify resources to improve capacity to adapt marketing strategies.
- Political and legal environment varies from country to country differences in variables such as governance systems, policy management, exchange rate export tax, international finance, markets, subsidies, corruption, protection of investments, regulations , expropriation and confiscation of property, import controls, price controls, restrictions on private sector participation in certain industries is Howe. Due to these differences, sales and marketing executives should read and understand these differences.

## CONCLUSION

Some of his most successful business practitioners perceive the reality may not, in fact, many of them still do not use all available capacity and favorable commercial success have not. They need to achieve greater success and wanted to know their customers well enough to meet the needs of their marketing programs to make. The institution must have adequate training and organizational flexibility to continually review their marketing strategies and goals to achieve sales results of more change. In this regard, it is important to note that a marketing plan should be set up to keep track of developments and changing customer demands and needs to be. It should not be forgotten that the permanent interests and needs of our customers. Hence, it is necessary to continually review their specifications and demands of our customers and the marketing program began to change.

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