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Organic Food Preference: 
An Empirical Study on the Profile 
and Loyalty of Organic Food Customers

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Atılım University 
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1. Introduction

Eating habits in the world have shown some phases over time. In the last century, the sole aim was to feed oneself, however, later in time, food industry has been affected from industrialization trend, and agriculture turned into a sector in which large-scale food products are produced and consumed primarily based on their being cost effective. In parallel with this trend, one of the major challenges in agriculture is to increase efficiency. As a result of this challenge, two types of food production have aroused— one being the conventional method and the other method utilizing genetic engineering which emerged in the last decade.

Conventional method is the oldest and the most widely used technique. According to Knorr and Watkins (1984) conventional agriculture is defined as “capital-intensive, large-scale, highly mechanized agriculture with monocultures of crops and extensive use of artificial fertilizers, herbicides and pesticides, with intensive animal husbandry”. However, heavy reliance on synthetic chemical fertilizers and pesticides is said to have serious impacts on public health and the environment (Pimentel et al. 2005). Therefore, as people are becoming more environmental conscious, this method is being questioned and tried to be developed during the last decades.

The second technique, called as genetically modified foods (GM foods or GMO foods), were first put on the market in the early 1990s (wikipedia.org). These food products are derived from genetically modified organisms, (GMOs), which are obtained by using advanced techniques of genetic engineering. Currently, genetic modification is mostly applied to soybean, corn, canola, cotton seed and sugar beet and the application area is observed to expand everyday.

Naturally, genetically modified foods are not without advantages and disadvantages. The biggest advantage of using genetically modified foods is the ability to grow faster and bigger crops. In addition to that, weaknesses against certain types of disease and insects might be eliminated by genetic modification (hubpages.com(1)). Moreover, higher crop yields are thought to make food prices decrease and therefore lead to less starvation in the world. Besides these advantages, GDOs have also disadvantages, such as their tendency to make harm to other organisms (such as in the case of monarch butterflies which are poisoned by GMO corns), possible damages to environment in the long run, possible health
problems in humans and unforeseen risks and dangers due to the complexity of nature (hubpages.com(2)). Apart from the technological developments and the increased need for food, beginning with the 1970s, consciousness about health and environmental issues has aroused. This awakening led to many changes in both production and consumption patterns of food. In parallel with these, environmental friendly agriculture, which is also called as ecological or organic agriculture, started to be employed and supported by the governments. Detailed information about organic foods, discussion on customer loyalty in food sector and empirical study are given next.

2. Organic foods

The first formal organization to promote and regulate organic agriculture is the International Federation of Organic Agriculture Movement (IFOAM), which was established in 1972. According to IFOAM, organic agriculture is “a production system that sustains the health of soil, ecosystem and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects.” In other words, organic foods are foods which are produced by using organic farming techniques, in which use of synthetic fertilizers, pesticides, fungicides, growth regulators and livestock feed additives and antibiotics as well as genetic modification are strictly prohibited (Lohr, 2001). Because of the naturalness of the production, organic foods are said be superior over food products that are produced with other techniques. Therefore, due to this perceived superiority, there is an increased attention towards organic practices.

According to a study conducted by Hau and Joaris (2000), certified organic products make up about 2% of the world food market. Despite its small market share, organic food products is the fastest growing segment of the food industry especially in the developed countries such as USA, Japan and EU countries (Raynolds, 2004). In the USA, the demand for organic food market was reported to increase at a rate of 18.5% (Klonsky, 2007), and in France the demand increase rate was about 10% annually (Monier, et.al, 2009), which is about ten times the rate of demand for total food products. This also stands as an evidence that the organic food market is growing very rapidly and special attention should be given for this segment in the food industry. Consequently, some studies (for example Vindigni et. al, 2002, Thompson, 1998, Makatouni, 2002, Lohr, 2002, Davies et.al, 1995) have been addressed to this issue in developed countries, yet there exist very few studies addressed in developing countries such as Turkey.

According to Turkish Statistical Institute (TUIK), about 43 million people live in Turkey in 20-60 age group, who decide personally on their food and may be considered as possible organic food consumers. This large number is appealing for marketers of several products, including organic food. However, previous research reveals that organic food production in Turkey was started to be employed not until 1985 (Karakoc and Baykam, 2009)- about 15 years later than it was started to be encouraged in the international markets with the establishment of International Federation of Organic Agriculture Movement (IFOAM) in 1972 (www.ifoam.org). Official encouragement of organic food production in Turkey was started only a decade ago, with the establishment of Association of Ecological Agriculture Organization (ETO) (Yanmaz, 2005). Currently, in Europe, about 6% of the agricultural
fields are allocated to organic farming, whereas in Turkey only 1% of the area is reserved for the same purpose (Deniz, 2007) and organic food products are still considered to be new products for Turkish consumers. Despite the short history of organic food in Turkey, currently about 250 different organic products are produced and almost all certified products are exported to developed countries, which are European Union countries, USA and Japan in particular. Also, it is reported that Turkey holds the market leader position in dry and dried organic fruits (www.eto.org.tr). However, it should not be overlooked that, logistics and certification process causes international trade to hold more problems than marketing domestically, especially in food products where freshness, food standards and reliability are the major concerns. However, despite its difficulties, as stated above, almost all of the organic food is produced for international markets and it is clear that the demand for organic food in domestic market needs to be promoted more. Considering that Turkey has a large population, who are getting more conscious in organic food production and consumption, reaching domestic customers might be more rewarding for businesses.

3. Customer loyalty in the food sector

Customer loyalty is another issue that is examined in this research. According to Jacoby and Kryner (1974), customer loyalty is defined as customer’s repeat purchase which is resulted from a series of psychological processes. However, it should be noted that, if people only focus on the repeated purchase, than it might be misleading, and this repeated buying should not be treated as customer loyalty. As Dick and Basu (1994) point out, even a relatively important repeat purchase may not reflect true loyalty, but may merely be the result of situational conditions. Therefore, many studies (for example, Jacoby & Chestnut, 1978; Kahn & Meyer, 1991; Dick & Basu, 1994) are available in the literature suggesting that loyalty should be divided into 2 types of loyalty: behavioral loyalty and attitudinal loyalty. In order to make a satisfying and comprehensive definition, both attitudinal and behavioral components should be present (Kim et.al, 1994). In parallel with this, Samuelson and Sandvick (1997) state that, behavioral approach to loyalty is still valid as a component of loyalty, however, attitudinal approaches to loyalty should also be present to supplement the behavioral approach.

Dick and Basu (1994) have developed a Loyalty Model, in which loyalty is shown to have different levels, affected from different attitudinal levels. As seen in the figure below (Figure 1), true loyalty can only exist when there is a highly positive relative attitude accompanied with a behavioral measure, which is called here as repeated patronage.

<table>
<thead>
<tr>
<th>Repeated Patronage</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Attitude</td>
<td>High</td>
<td>True Loyalty</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Spurious Loyalty</td>
</tr>
</tbody>
</table>

Fig. 1. Dick and Basu’s Loyalty Model (Garland and Gendall, 2004)

Looking at the financial perspective of a firm, one of the most important roles of marketing is to increase the market for a product and to create continous cash flows for the company. According to many researchers, (such as Gupta and Zeithaml (2006), Rust et.al (2000) Srinivasan et.al, (2005), Baloglu (2002)) creating loyal customers to the firm is the first step
and is very essential for increasing the market for a product. Keeping in mind that the market for organic food products needs to be enlarged, customer loyalty concept should also be examined in depth. Therefore, results and implications of the empirical study will be discussed in the following sections of this study.

4. Methodology

Survey method is used in order to gather data in this research. The questionnaire was formed based on previous research (such as Sarikaya, 2007; Monier, 2009; McIver, 2004, etc.) in addition to questions formed by the researcher, parallel with the aim of the study. Since the questionnaire is newly formed, it should be tested for internal consistency before employing it as the actual data gathering instrument (Tabacknick and Fidell, 2001). Therefore the questionnaire was applied to a test group of 37 in order to see the internal consistency coefficient, known as Cronbach’s Alfa. After running the test, the Cronbach’s Alfa was found to be .72. Since the acceptable level of Cronbach Alfa is .70 for internal consistency (Nunnally and Bernstein, 1974), the created questionnaire was found to be suitable to be used in the current research and it is applied for the actual study.

The questionnaire consists of five parts. In the first part, attitudes towards organic food products and buying patterns are investigated with 22 questions. Based on author’s personal experience and observation, there is a debate on the fact that people’s choice of organic food show difference according to for whom they are buying the food. In other words, when people are shopping for their children, it is seen that tendency towards buying organic alternative increases. Whether this observation is true for Turkish customers is also tried to be answered with the help of questions in the first part.

In the second part, the accessibility of organic food products and the place where respondents get their organic foods are asked. In the third part, respondents are asked to rank the reasons for choosing organic foods, where in the fourth part, they are kindly asked to reveal their opinions about what needs to be developed in the organic food sector.

The final part of the questionnaire is devoted to demographic questions, consisting of educational level, marital status, family size, gender, monthly income and age. All of the questions in the questionnaire are formed as structured and pre-coded questions; therefore reluctance towards participating in the study is minimized due to minimized effort required from respondents.

The questionnaire was applied on June 2011 in Turkey’s two largest cities- Ankara and Istanbul, due to convenience and purposive reasons. Respondents were chosen via mall-intercept method and before applying the questionnaire, a filtering question whether or not they purchase organic products was asked and it is made sure that the sample group consists of only organic customers.

A number of 138 questionnaires were filled, however, after preliminary screening, only 122 of them were found to be useful. The data gathered was analyzed with respect to descriptive and univariate analysis such as frequency tables, t-test and ANOVA by using SPSS 15.0 software package.

5. Empirical results / findings

The current study was conducted in Ankara and Istanbul in June 2011. Respondents were selected via mall-intercept method among organic food purchasers, with respect to
availability. According to the results of the study, majority of the respondents are found out to be female, have university degree and are married with children. Considering that the respondents are chosen among organic food buyers, these demographic findings might be considered as the general profile of organic food buyers segment. The characteristics of the respondents are given in the tables below.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>%</th>
<th>Cum. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>35</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Female</td>
<td>87</td>
<td>71</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Gender distribution of respondents

As seen from the table above, 71% of the respondents are female. This result might imply that, female are the major customers of organic food products.

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>%</th>
<th>Cum. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 25</td>
<td>8</td>
<td>6.6</td>
<td>6.6</td>
</tr>
<tr>
<td>26-30</td>
<td>16</td>
<td>13.1</td>
<td>19.7</td>
</tr>
<tr>
<td>31-35</td>
<td>38</td>
<td>31.1</td>
<td>50.8</td>
</tr>
<tr>
<td>36-40</td>
<td>28</td>
<td>23.0</td>
<td>73.8</td>
</tr>
<tr>
<td>&gt; 41</td>
<td>32</td>
<td>26.2</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Age distribution of respondents

When the age distribution is examined, it is seen that about 30% of the respondents are between 31 and 35, and the smallest group with respect to age is composed of people who are younger than 25. This result might be interpreted as younger people are less likely to buy organic food products. However, this interpretation should be approached with caution, because the sample is not taken via random sampling method and therefore is susceptible to sampling errors (Malhotra, 2011).

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Frequency</th>
<th>%</th>
<th>Cum. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>38</td>
<td>31.1</td>
<td>31.1</td>
</tr>
<tr>
<td>Married</td>
<td>84</td>
<td>68.9</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Marital Status of the respondents
According to the results, 84 of the respondents are married and remaining 38 of respondents are single. The married group consists of about 70% of the total respondents. In order to increase the expressiveness of this result, family size is also measured, as shown below.

<table>
<thead>
<tr>
<th>Family Size</th>
<th>Frequency</th>
<th>%</th>
<th>Cum. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spouse and myself</td>
<td>20</td>
<td>16.4</td>
<td>15.6</td>
</tr>
<tr>
<td>Spouse, myself, and kid(s) younger than 3 years old</td>
<td>46</td>
<td>37.7</td>
<td>54.1</td>
</tr>
<tr>
<td>Spouse, myself, and kid(s) older than 3 years old</td>
<td>41</td>
<td>33.6</td>
<td>87.7</td>
</tr>
<tr>
<td>Myself and my parents</td>
<td>5</td>
<td>4.1</td>
<td>91.8</td>
</tr>
<tr>
<td>Only myself</td>
<td>10</td>
<td>8.2</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>122</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4. The family size of the respondents

As shown in the table above (Table 4), 71.3% of the respondents are living with spouse and kid(s). The smallest group with respect to family size is the group who are living with his/her parents, composing only 4% of the respondents. This result may lead to a stereotyping that, there is an increased tendency towards buying organic food products if a person has a child. Whether this stereotype is true or not, in other words, whether there is a significant difference between buying food for kids and buying for adults will be tested as an hypothesis in the following parts of this study.

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Frequency</th>
<th>%</th>
<th>Cum. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High school</td>
<td>4</td>
<td>3.3</td>
<td>3</td>
</tr>
<tr>
<td>High school</td>
<td>22</td>
<td>18</td>
<td>21.3</td>
</tr>
<tr>
<td>University</td>
<td>67</td>
<td>54.9</td>
<td>76.2</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>20</td>
<td>16.4</td>
<td>92.6</td>
</tr>
<tr>
<td>PhD/Doctorate</td>
<td>9</td>
<td>7.4</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>122</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Table 5. Education level of respondents

According to the results, it is seen that 97% of the respondents have at least high school degree. In addition to this, it is seen that 67 of the people have a university diploma, which corresponds to 55% of the respondents. Moreover, 29 of the respondents have graduate degree, corresponding to 23%. By looking at this education data, it can be concluded that, organic foods are preferred by mostly educated people.
As seen in the table above (Table 6), 48% of the respondents earn less than 3000 TL a month and 52% have monthly income higher than 3000 TL. According to TUIK (2011), the average monthly income for household in Turkey is 1750 TL for the year 2010. This result might be interpreted as that, the shoppers for organic food products have a higher income level than Turkish households.

### 5.1 Attitudes towards organic foods and organic food preference

Respondent’s attitudes towards organic food products are measured with Likert-scaled items in the questionnaire. The items are scaled from 1 to 5, with “1” being “strongly disagree” and “5” being strongly agree” to given statements. By looking at the results, it is seen that, the average score for the statement “organic foods are more delicious than traditional food products” is 4.26, implying that respondents strongly agree that there is a difference in taste in favor of organically produced food products. Similarly, the statement of “organic foods are more nutritious” has received 3.8 points and the statement “organic food products are healthier than traditional food products” have received an average of 4.12. These results show that, there is a general strong belief towards organic food’s being healthier.

When they are asked for their buying behavior, it is seen that respondents are not reluctant to pay a premium price in order to buy an organic food product. Currently, organic foods are about twice more expensive than regular food products in Turkish market. Even though this 100% premium price is paid, either willingly or unwillingly, 79 of the respondents (64.7%) believe that, in order to increase the demand for organic food products, the price of the organic food products should be decreased. In addition to price, respondents state that, the barriers to purchase organic foods include availability and organic food product range. These factors should also be developed, if organic food market is wanted to expand.

In an attempt to find out the reasons why people do not complain much about premium price they pay for organic foods, an open ended question is placed in the questionnaire. The most frequent answer is related with health concerns. 83 of the respondents (68%) believe that, organic foods are worth a price premium due to being healthier and have more nutritious value. Other reasons for household’s willingness to pay more are listed as quality, certification and environmental concerns, where environmental concerns being seen as the least important reason. This finding contradicts with the research made by Bellows et.al (2008), in which environmental concerns are seen as more important factor for demand for organic products.
As stated above, customer loyalty is very essential in order to expand a market of a product. Since nothing can be improved unless measured, two questions were placed in the questionnaire in order to find out loyalty levels of the respondents towards organic food products. In the first question, which was asked in order to identify the behavioral component of customer loyalty, respondents are asked “if they prefer to buy the organic alternative if there existed one”. This question has received an average score of 3.74, implying that there is a tendency to buy the organic alternative. The second question about loyalty is asked to test for attitudinal loyalty. In this question respondents are asked “if they recommend organic foods to other people”. This question has received an average score of 4.2, which may be translated as that they make recommendations to other people which leads to a result that they have attitudinal loyalty. By comparing these two loyalty scores, it might be concluded that respondents are both behaviorally and attitudinally loyal to organic food products. This result may imply that organic food product market might continue to expand in the following years as well.

5.2 Changes in behavior according to whom the food is bought for

Based on author’s personal experience and observation, it is seen that people become selective in shopping if they are buying goods for other people, especially if they are buying foods for children. Even though less attention is paid to health concerns while buying for himself/herself, the picture changes when it comes to shop for the children. Considering that there is a positive attitude towards organic food products, it is expected that people would buy organic food products for their children more often than they buy for themselves. In order to answer the question whether this observation is statistically provable for Turkish customers, questions in the first part of the questionnaire should be analyzed.

As shown above in Table 4, 70% of the respondents are living with spouse and kid(s), leading to a thought that there is an increased tendency towards buying organic food products if a person has a child. However, if this stereotyping is statistically significant or not should be tested.

A one sample t-test is conducted to see if there is significant change between the intention to buy organic foods for respondent himself or for his children. Firstly, the general tendency towards organic food buying is tested. The sample mean for “tendency to buy organic food products for children” is 4.19, which is found to be significantly different from the mean for “tendency to buy organic food products for himself”, which has an average of 3.15 (t(121)=1.82, p=.04) at 95% confidence level.

After t-test is employed for testing the difference in general buying tendencies, individual tests, with respect to some product groups are conducted. These product groups include fresh vegetables, fresh fruits, milk and dairy products and dried fruits. However, no significant change is observed in the tendency to buy organic alternative in any of the individual product groups cited above. This result shows that despite the observed significant difference in tendency to buy organic food for children and for adults, there is no significant relation between tendency to buy organic foods for these two groups, with respect to special product groups.

6. Conclusion

Nowadays the society is mainly concerned with topics such as global warming, ecological impacts, health issues and better nutrition. In the area of food production, organic

production techniques are seen as the best alternative for these issues. In parallel with the increased consciousness on health and environmental issues, the demand for organic food products is rapidly increasing worldwide. It is reported that annual growth rate in demand for organic foods is about 10 times the rate of demand for total food products (Monier et al., 2009). Despite the increasing domestic demand in Turkey, it is seen that majority of the produced organic food is exported to European countries, USA and to Japan. In spite of the high potential for organic food production in Turkey, it is seen that only about 1% of the total agricultural area is devoted to organic farming. Considering that demand is increasing everyday, Turkey should act intelligently to utilize its potential to become a major local and international organic food supplier. Yet, certification process, issues in labeling and logistics of the organic foods constitute important barriers to exporting. Therefore, in order to increase the production of organic products, it is firstly essential to expand the domestic market for organic products.

For the purpose of increasing the domestic demand, the general attitude of Turkish consumers towards organic foods, the profile of organic buyers and customer loyalty in organic food products market is tried to be investigated in this study. A survey is applied to 122 respondents, of which the majority of the respondents are highly educated females, who are married and have children. In addition to that, respondents have about 3000 TL monthly income, which is seen to be higher than Turkey average income. This profile is parallel with other studies (such as Sarıkaya, 2007, Monier et al., 2009, Yanmaz, 2005) concerning the buyers for organic food products.

According to the results, there is a strong belief that organic foods are more delicious than other foods, and they are believed to have more nutritious value. In an overall assessment, organic products are preferred over conventionally produced or genetically modified food, especially if people are buying for their children. The fact that preference for organic foods differs according to whom the food is bought for is also tested and is proved to have a statistical significance. However, no significant change is observed in the tendency to buy organic alternative for specific product groups. The reason for not observing a significant difference might be due to small sample size and signals that tests should be repeated in further studies. In addition to this, in general, it can be said that organic food products are preferred mainly due to health concerns. Nevertheless, trust is an important issue in customer’s minds and it is believed that strict controls and procedures in both production labeling should be implemented.

Another topic investigated in this research is about customer loyalty. According to the results, it is seen that here is a high loyalty among organic customers both in attitudinal and behavioral dimensions. This result is especially important for organic food producers, because high attitudinal loyalty is considered as a signal that consumers are willing to buy the organic alternative if there exists one and they recommend organic products to their families and friends. Moreover, it is seen that people are not satisfied with the currently available product range. Therefore, one can conclude that organic demand is congruent and the market for organic food products are expected to expand provided that the industry and the retailers ensure regular and easy supply with a high product variability.

To sum it up, according to the results of the empirical study, it is seen that the domestic market for organic food products is eager for new products and there is a strong loyalty among organic customers towards these products. In order to utilize this market potential,
availability should be increased via utilizing supermarkets and alternative marketing channels more effectively. Currently, marketing and distribution for organic foods are relatively inefficient due to small volumes, which leads to high costs. Provided that marketing channels are better organized for organic foods, then the prices will eventually decrease, which will lead to an increase in demand. Moreover, there is still a lack of information about organic food products in the domestic market. Both the producer and customers should be better informed. Considering the demographic profile of the organic customers, marketing of the organic food products should be targeted mostly to educated women who have children. Finally, the variability in the organic foods should be increased since current customers for organic products are eager to buy organic alternative if possible. Provided that these actions are taken, then it should be no surprise to see Turkey as the leader in organic food production and consumption.

7. Limitations and suggestions for further study

As in every study, this study has also its limitations. One of major limitations of the study is due to application of survey method. There might be some errors due to factors such as social desirability or effect of the interviewer. It is believed that more reliable results could be obtained if survey method could have been backed up with other research methods such as observation or even experimentation. Especially, market basket analysis is expected to lead to interesting findings in consumer behavior in food sector. Even though 122 is a satisfying sample size, the results of the findings could be more reliable and maybe the statistical associations which could not be observed could be observed if the sample size was larger.

Therefore, in further studies, it is recommended to study with a larger sample size and with other techniques in order to increase the generalizability and reliability of the results.

8. References

Association of Ecological Agriculture http://www.eto.org.tr

International Federation of Organic Agriculture Movement (IFOAM) www.ifoam.org
Turkish Statistical Institute (TUIK) www.tuik.gov.tr

www.intechopen.com


This book presents the wisdom, knowledge and expertise of the food industry that ensures the supply of food to maintain the health, comfort, and wellbeing of humankind. The global food industry has the largest market: the world population of seven billion people. The book pioneers life-saving innovations and assists in the fight against world hunger and food shortages that threaten human essentials such as water and energy supply. Floods, droughts, fires, storms, climate change, global warming and greenhouse gas emissions can be devastating, altering the environment and, ultimately, the production of foods. Experts from industry and academia, as well as food producers, designers of food processing equipment, and corrosion practitioners have written special chapters for this rich compendium based on their encyclopedic knowledge and practical experience. This is a multi-authored book. The writers, who come from diverse areas of food science and technology, enrich this volume by presenting different approaches and orientations.

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