The future of the food industry
CSB-Survey for the Food and Beverage Industry 2017
Quality and digitization as success factors in the Food & Beverage industry

The food and beverage industry is facing multifaceted challenges. Which ones are the most important? Is it the changing consumer behavior? Is it the downward pressure on prices or legal requirements? What are the major problem areas in these companies? In 2017, CSB-System as the industry specialist for the Food and Beverage industry established for the first time a comprehensive analysis of the current state and the future of this industry. We will repeat this survey every year in order to keep abreast of ongoing changes and developments.

Apart from key strategies and trends in this industry, this year we were particularly interested in the effects of IT and the status of the “digital transformation”. This is what we consider the most significant findings:

• **Prospects are good**: Generally, the decision-makers in the Food & Beverage industry are optimistic about the future as they expect the economic situation of their business to pick up further.

• **Quality is increasingly important**: The significance of food value is increasing. In addition to the mass market, high-price segments are gaining importance. The fusion of cutting-edge technologies and traditional crafts produces a new quality of foodstuffs that are elaborately manufactured, prepared and consumed. At least, this is what the responding decision-makers consider a likely scenario.

• **IT makes a valuable contribution**: Digitization is getting more and more important. Its key contribution is in managing the complexity, controlling the operations and improving the responsiveness. However, in many cases there is not enough budget.
In the first global survey, we interviewed decision-makers from the international Food and Beverage industry.

- We conducted the survey around the world in June and July 2017 by means of an online questionnaire.
- We surveyed the decision-maker level in Food & Beverage companies in 27 countries.
- Answers were given on a scale from 1 (low) to 6 (high).
In terms of business strategy, the majority relies on good products, considering their products as the basis of their success.

The majority of the surveyed decision-makers sees their own products as the basis for their business success: half of the respondents defines product leadership through quality, freshness and innovations as their preferred business strategy.

Only 29 percent view their customer relations as the primary success factor. And only one in eight sees cost leadership as business strategy approach of their own company.
The industry is facing downward pressure on prices and more stringent laws and trade requirements.

- High downward pressure on prices: 4.65
- Legal and trade requirements concerning food safety, labeling and traceability, especially on an international level: 4.56
- Increasing trade requirements (flexibility, response times, automation): 4.54
- Digitization of the value chain (Industry 4.0, Smart Food Factory): 4.27
- Increasing complexity of the own value chain: 4.24
- More stringent consumer requirements as regards for example quality and freshness: 4.15
- Globalization of procurement and sales, new vendors and sales markets: 3.98
- Changed consumer behavior and market trends like Hyper Local, Convenience 3.0 or Beyond Meat: 3.95

The price is the biggest challenged for the surveyed companies. Two out of three decision-makers are sensing a big or very big downward pressure on the prices. Another challenge are legal requirements with regard to food safety, labeling and traceability, as well as increasing demands from trade.
Decision-makers see the greatest improvement potential in their IT. Investments are quite manageable.

In this situation, the enterprises expect the greatest improvement potentials in the areas of sales & marketing, production & intralogistics and especially in IT. According to the respondents, IT can help to reduce the costs, but what is more important is its contribution to managing the complexity, controlling the operations and improving the responsiveness.

Overall, IT is considered important for the enterprise but, despite all major challenges, not as very important. Consequently, only one out of four companies spends more than 1 percent of the sales volume on IT. In view of the improvement potentials through IT, the major challenges and the high value contribution of IT, the resources invested for IT could well be improved.
Managing the complexity with IT. This is what decision-makers see as biggest value contribution of IT.

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Security, traceability and controlling the production facilities are significant current challenges for IT

- IT Security: 4.38
- Traceability: 4.14
- FACTORY ERP - Controlling production facilities with a single system: 3.80
- Quality Management & Certification: 3.75
- Cloud: 2.80

The value contribution of IT is indisputable. What are the companies of the Food & Beverage industry working on specifically? What are the current main issues of the operational business? Besides IT security, it is traceability as well as optimal control of the production facilities.
Decision-makers also see the following improvement potentials in the business software (ERP)

<table>
<thead>
<tr>
<th>Potential</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schnellere Anpassung an neue Prozesse</td>
<td>4.46</td>
</tr>
<tr>
<td>Usability of the business software</td>
<td>4.45</td>
</tr>
<tr>
<td>Security</td>
<td>4.39</td>
</tr>
<tr>
<td>Integration of hardware, for example scales, production machines, etc.</td>
<td>4.35</td>
</tr>
<tr>
<td>Transparency and control throughout the entire value chain (Company</td>
<td>4.35</td>
</tr>
<tr>
<td>Performance Center/ COMPCENTER)</td>
<td></td>
</tr>
<tr>
<td>Releasability</td>
<td>4.24</td>
</tr>
<tr>
<td>Mapping industry-specific processes</td>
<td>4.13</td>
</tr>
<tr>
<td>Integration of external partners</td>
<td>4.09</td>
</tr>
<tr>
<td>Industry 4.0 concepts and applications</td>
<td>3.96</td>
</tr>
<tr>
<td>Integration of automation solutions</td>
<td></td>
</tr>
<tr>
<td>Integration of industrial image processing</td>
<td>3.42</td>
</tr>
</tbody>
</table>
The Smart Food Factory is coming. Decision-makers still see obstacles to Industry 4.0

The entire value chain will be digitized further. Many decision-makers (still) see obstacles when it comes to Industry 4.0. Besides security aspects, missing budgets are the key constraint to a quick introduction.

Most of the decision-makers therefore do not expect a strong digital future of the industry. Only 20 percent of the respondents believed that the food production 30 years from now will be automated to a large extent through the Internet of Things, robotics and artificial intelligence, and that high efficiency in mass production as well as constantly high quality will be the decisive competitive edge in the food industry. See the future scenarios on the next page.
Which future scenario do the decision-makers consider probable?

The significance of value and sustainability in the food sector continues to increase. In addition to the mass market, high-price segments are gaining importance. The fusion of cutting-edge technologies and traditional crafts produces a new quality of foodstuffs that are elaborately manufactured, prepared and consumed.

Precise information about markets, brands and consumers is the factor of success in future. Food production and trade will be integrated more, allowing you to respond quicker to changing customer demands, to obtain reasonable margins and to offer consumers an entirely coherent experience and, above all, freshness.

In 30 years, major parts of the food production will be fully automated by using the Internet of Things, robotics and artificial intelligence. High efficiency in mass production and constant high quality will be vital competitive advantages in the food industry.
Quality will become even more crucial to success in the Food & Beverage industry

**Decision-makers expect quality and sustainability to gain importance**

The decision-makers considered the following scenario to be most probable: The significance of value and sustainability in the food industry continues to increase. In addition to the mass market, high-price segments are gaining importance. The fusion of cutting-edge technologies and traditional crafts produces a new quality of foodstuffs that are elaborately manufactured, prepared and consumed.

**Presently, companies need to respond to the pricing pressure. IT offers the biggest potential**

This confirms that the approach of counting on quality is the right track for the future. The optimism would therefore be justified if this scenario were to happen. However, the present situation shows that downward price pressure and increasing legal and trade requirements force the enterprises to improve on a purely operational level. The survey has shown here that IT is called for, making valuable contributions especially for managing the complexity. Also for other issues of the Food & Beverage industry, for instance traceability, IT and the ERP system in particular remain the key to success.

**Actively managing digitization**

The value-adding processes of the Food & Beverage industry will be digitized further. Decision-makers would therefore be well advised to manage digitization actively, to increase product quality and to improve customer experience in order to succeed now and in future. IT has become a critical success factor also in the food and beverage industry.
“We still expect the downward pressure on prices to persist so cost reductions are necessary. This must not adversely affect product quality, and it will not necessarily do so.

Our experience is that there is plenty of optimization potential in the processes, mainly through digitization.”

Hermann Schalk, Head of Sales at CSB-System AG
About CSB

CSB-System AG is the leading industry IT specialist for the process industries of food, beverages, chemicals, pharmaceuticals, cosmetics and trade. As a one-stop source for software, hardware, services and business consulting, we have been the innovation partner of our customers for 40 years, creating significant competitive advantages.

Around the world, we offer our customers all services they need for the efficient use of the CSB-System: management & planning software, process control software, execution & production software, industrial image processing with CSB-Vision, hardware, automation solutions as well as business consulting and services.

The approach of supplying software, hardware, services and business consulting from a single source results in a reduction of costs and complexity for our customers, for example in the case of acquisitions or international expansion of their businesses.
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