Social responsibility of manufacturers of crystal glass in the context of ensuring food safety. Case study

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Abstract
The increasingly popular CSR concept implemented in the food chain plays an important role also in the context of the manufacturer’s responsibility for the health of the users of the manufactured products. The synergy of CSR activities and the use of Good Manufacturing Practice (GMP) enables delivery solutions which ensure the desired and acceptable level of health safety, while respecting certain standards expected by foreign markets. Export to these markets requires, in addition to respecting certain international guidelines, also taking into the account socially responsible customer expectations. The presentation of the indicated relationships in the context of the solutions used in a particular company operating in Poland is the main objective of this article. This issue is examined on the example of the Crystal Glassworks Factory, which aspires to the position of an industry leader in the Polish industry of decorated crystal glass products.

Keywords: corporate social responsibility, food safety assurance, good manufacturing practice, products intended to contact with foodstuffs

JEL Classification: M14, L15, L61

1. Introduction
The changing circumstances of the operation of enterprises and increasing customer expectations related to the quality and safety of purchased products pose new challenges to the manufacturers. Risks associated with lowering the quality and safety of raw materials add fundamental importance to ensuring their desired level. This becomes especially important when dealing with the production of goods that are going to come in contact with food, because then safety must be considered in the context of food security. Food safety is not only a feature of food itself. In addition to the guarantee that there are no biological, chemical and physical risks concerning the food, it is also important to ensure the safety associated with the production and its rotation, including the use of appropriate packaging (Wysokińska-Senkus, 2010, p. 132).

At this point it should be pointed out that, nowadays, an important role in the context of manufacturer's responsibility for the health of consumers is played by the increasingly popular concept of corporate social responsibility(CSR). The synergy of the CSR activities is based on the sharing of knowledge in the food chain (Zięba, 2013, pp. 153-165), including the use of Good Manufacturing Practices(GMP) (Krajewska-Kolozyn, 2007, p. 43), which allows for a delivery of solutions to ensure the desired and acceptable level of health safety, while respecting certain standards expected by foreign markets (Anam, 2012, p. 4).

The concept of corporate social responsibility is an issue described in the literature, and has been put into practice for some time. However, the conscious and deliberate application of its principles in relation to specific areas of the business still raises - especially among some of the representatives of management in companies - specific discussions, or even doubt. One
reason for this state of affairs can be - as it seems - the fact that the studies presented in scientific publications attempt to define it over and over again.  

At this point it is worth noting the definition of the concept of corporate social responsibility proposed by the European Commission. It connects social responsibility with the voluntary consideration by the enterprises of social and environmental issues. At the same time it is emphasized that this responsibility should enable the management of relations with various stakeholder groups which have an impact on the functioning of the company (European Commission, 2001, p. 5). This includes both internal stakeholders (owners, employees) and external ones, e.g. suppliers, business partners, contractors, and particularly customers.

Referring to the CSR approach preferred by the authors Y. Ch. Kang and D. J. Wood it is worth recalling that this responsibility - in the terms presented by them-means the obligation of the companies to comply with standards of moral and social values at every stage of their business (Kang & Wood 1995, p. 414). In this light, these moral norms cannot function without proper care for the health of customers and without providing food safety (Hartmann, 2011, pp. 297–324). This is reflected in the norms and standards which area kind of a "guideline" for actions towards realizing the concept of social responsibility. They include a document such as ISO 26000:2012 Guidance on social responsibility, as one of three documents recommended by the European Commission on the subject of social responsibility for European businesses.

This standard has not been developed for the purpose of certification. Its goal is to aid organisations in operating in a socially responsible way, which becomes a requirement for societies around the world and is no longer merely a matter of choice (ISO 26000). The standard indicates, among other issues, its key areas. Among them, a particularly important one from the point of view of consumer health and food safety, should be considered the area of practices in customer relations (ISO 26000: 2012, pp. 69-70).

The PN-ISO 26000:2012 norm does not indicate specific actions that entrepreneurs should undertake to assure the health of the users of their products. It does, however, pertain to the problems of food safety. As already stated above, the provision of that security requires a synergy of actions undertaken in relation to the theoretical assumptions and formal guidelines in the field of CSR and those directly concerning the issue of food safety. We can mention, for example: Regulation (EC) No. 1935/2004 of the European Parliament and Council of 27 October 2004 on materials and articles intended to come into contact with food and repealing directives 80/590/EEC and 89/109/EEC (Journal of Laws, EU L 338/4 of 13.11.2004), and Commission Regulation (EC) No. 2023/2006 of 22 December 2006 on good manufacturing practice for materials and articles intended to come into contact with food (Journal of Laws, EU L 384/75, 29.12.2006).

Good Manufacturing Practice (GMP) is concerned with these aspects of quality assurance which ensure a uniform production of materials and products and their control to ensure compliance with the rules applicable to them and the quality standards (Commission Regulation (EC) No. 2023/2006, Art. 3 a). GMP is usually issued in the form of so-called Codes of Good Practice, which include all recommendations that are to be followed by the food manufacturer in order not to violate the sanitary regulations which are in force in the country.

During considerations on the issue of CSR in the context of food security, it should be remembered that the actualization of the concept of social responsibility in the area of

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1 Overview of these definitions in the Polish literature has been comprehensively included, among others, in (Sokołowska, 2013), (Craig & Lensen, 2009).
ensuring the health and safety of food requires building relationships with customers based on respect for a diverse range of guidelines and standards\(^2\).

In connection with the requirements of the new guidelines and standards, enterprises are obliged to supplement their materials and articles with a written declaration (declaration of conformity) stating that they comply with the rules applicable to them. There should also be implemented certain organizational solutions intended to ensure "traceability," i.e. traceability of materials and products in order to facilitate control, the recall of defective products, consumer information, and the attribution of responsibility.

Considering the above mentioned issues, the objective of this study was to demonstrate the solutions used in connection with the implementation of the concept of social responsibility in the area of food security in one of the companies operating in Poland. The authors of this study believe that the studied example of these solutions should be viewed in terms of so-called good practices whose implementation can and should act as a spur to attribute greater prominence to similar actions in other organizations.

2. Data and Methods

Empirical studies were conducted in the manufacturing company which aspires to the position of a leader in the industry of decorated crystal glass products in Poland. Due to the lack of consent to the publication of the company’s name, it will be hereby referred to as "the Factory".

The company in question currently manages a brand which has been present in the world markets for over 200 years. The Factory functions as a branch of production and produces crystal glass blown and pressed. In order to fit with the needs of customers and the requirements of the community law governing the manufacture of articles that come in contact with food, the Factory has implemented Good Manufacturing Practices. The company has adopted a policy of quality whose aim is to acquire and maintain the position of a world leader in crystal glass production. The responsibilities of the Factory in relation to the quality of its products are implemented by fulfilling not only legal requirements, but also customer expectations in order to deliver a safe product.

The specificity of the Factory’s production methods is currently an extremely niche industry in Poland. Production of hand-moulded and polished glass products, a traditional manufacturing technique and decorative design referring to the art of the nineteenth century allow for originality and open the way to a competitive market, winning numerous customers around the world. Nevertheless, the export of the Factory’s products to foreign markets is burdened with the need to respect international technological requirements in terms of health safety of products intended for contact with food and the integration of socially responsible customer expectations. The traditional technique of production is also accompanied by the use of traditional materials, such as, among others, glass sand (SiO\(_2\)), potassium nitrate (KNO\(_3\)), calcined potash (K\(_2\)CO\(_3\)), antimony oxide (Sb\(_2\)O\(_3\)), and red lead (Pb\(_3\)O\(_4\)).

Considering the quality-oriented character of the research problem, the focus of the study was more on providing an in-depth insight into the problem than on the analysis of variables. This is likely to yield findings that can be merely suggested by qualitative examinations (Wójcik,

\(^2\) In addition to the guidelines and standards listed above, it is important to mention the standard ISO 22000:2006, but also many regulations and laws, e.g. the law on liability for damage caused by a dangerous product or a regulation on the list of substances whose use is permitted in the manufacture or processing materials and articles intended to come into contact with food. For more information see. (Kijowski, 2008).
2013; in: Yin, 2009). It should be noted that researchers emphasize more and more often in the literature – e.g. findings presented by B. Flyvbjerg – that there are no generally-accepted theories with respect to human problems (especially food safety and CSR) (Flyvbjerg, 2005, p. 47). This author emphasized the benefits of using case study practices (case study methods). R. Yin also recommended employing case study methodologies to find answer to the question of why a particular phenomenon occurs (Yin, 2009, p.8).

Therefore, the description of an individual case study was employed in the study and the information was collected using the analysis of internal documentation, interviews and participant observation. Accordingly, data sources included an analysis of company documents created with regard to social responsibility through the implementation of Good Manufacturing Practice (GMP). Among the analyzed documents there was a Quality Manual, procedures and operational instructions, registers and forms to be used for the establishment of quality records, as well as results of laboratory tests confirming compliance with the standards of food safety.

In addition, the research process used participant observation. One of the co-authors of this study actively participated in the development of documentation necessary to develop and implement a quality management system that meets the requirements of Good Manufacturing Practices in relation to the studied company.

The research process also used informal interview with the representatives of the chief executives of the company, as well as the representatives of employees (a total of 126 people). In other words, there was used in-depth individual interview (IDI), i.e. a direct method of measuring the initial survey in which respondent is an active object of measurement, and where there is direct communication between the people selected for measurement and those carrying out said measurement (conversation) (Kaczmarczyk, 1999, p. 252). This kind of research, as established, allows for more in-depth knowledge and understanding of the analyzed issues.

The results presented here cannot be considered significant in statistical terms and should be treated in terms of an initial diagnosis for the discussed research issues and, at the same time, as has already been emphasized, as an example of good practices.

3. Results and Discussion

The Factory, being a manufacturer of products intended for contact with food (cups and glasses with coloured or clear crystal glass), with reference to the issue of food safety, shall be the subject of, in particular, the abovementioned requirements of the EU legislation, i.e. The Ordinance (EC) No. 1935/2004, and of the Commission’s Regulation (EC) No. 2023/2006. It should be emphasized that in light of current legal situation in Poland there are no regulations which would refer to the requirements that should be met by glass products in the context of food health safety. However, the enterprise analysed in the study, guided by the sense of social responsibility for the health of their products’ users, adopts other regulations per analogiam that are not compulsory i.e. they do not refer directly to the type of products manufactured in the Factory. In this respect, the enterprise implements guidelines contained in the Ordinance by the Minister of Health as of 15 August 2008 concerning the list of substances permitted to be used for manufacturing and processing of materials and products from materials other than plastics for contact with food (Journal of Laws 2008 No. 17, item 113), which refers to ceramic goods. Nevertheless, due to the similar category of glass and ceramic ware, including its raw material composition, the justness of using such solutions was adopted in the Factory, thus extending the formal legal order.
In connection with the requirements of these acts, the studied enterprise must meet the requirement of supplementing the materials and articles with a written declaration (i.e. the declaration of conformity) stating that they comply with the rules applicable to them. In order to demonstrate said compliance, adequate documentation should be available. The studied Factory fully complies with these formal requirements. Each product is supplemented with a written declaration certifying that the product meets the requirements included in relevant acts of law, standards and norms. At the same time, these declarations contains information about the compliance of the product with the quantitative limits of lead and cadmium.

An important element in ensuring health safety of customers - related to food safety - in the studied company is periodic testing of migration, which can be considered as one of the conditions for issuing the so-called declaration of conformity. It is particularly important to mark a specific migration assay in the scope of migration of cadmium and lead from the article of food (in this case lotions, alcohol, etc.). In order to determine the consistency with the standards expected for this type of products (glass), the requirements contained in the documents that extend current legal regulations due to the lack of a legal reference to health safety of glass products for contact with food are adopted:


Although not required by Polish legal regulations, products manufactured in the Factory are subjected to tests regarding the designation of the specific migration of lead and cadmium with the frequency of once per every two years. The test results are documented. The analysis of shared documents allows to state that the Factory’s products demonstrate compliance with the prescribed standards. According to the information obtained during interviews with the management and representatives of employees, the abovementioned measures are a sign of good manufacturing practices (GMP), which are - as already pointed out before – particularly required in the food industry. The abovementioned studies are also carried out at the request of the consumers of finished products.

Other initiatives that reach beyond current legal regulations (thus included in corporate social responsibility) were also observed. It was assumed that safe and hygienic work environment in the enterprises analysed in the study also affects health safety of products. Ensuring comfortable work environment is conducive to proper supervision of the technological processes and, consequently, maintaining its parameters in a manner that guarantees that strict standards concerning glass products for contact with foodstuffs are met. The measures were taken in the enterprise in order to avoid threats connected with working in the glass manufacturing industry. Work stations were equipped in facilities and safety systems e.g. noise-reducing chambers in the manufacturing part and air conditioning systems in rooms with high temperatures. It was adopted that the thermal comfort of employees in the Factory is the particularly important factor. Working conditions are monitored by the assigned employees and the results are audited by an independent external entity. Moreover, the decisions made in the Factory concerning the working environment are always consulted with trade unions and employee representations.

4. Conclusion

It should be emphasized that there are a number of the components in the enterprise analysed in the study that help improve health and life safety of products. These include e.g. evaluation
of cadmium and lead migration from the product to food or Good Manufacturing Practices which are so characteristic for food production. Consequently, meeting the requirements contained in legal regulations, including the acceptance of above-standard obligations in terms of health safety of glass products (that result from the lack of adequate regulations within Polish legislature) and social dialogue in the area of personal policy and safe working conditions (as a factor that supports adequate supervision of the technological process) are the manifestation of the implementation of the concept of corporate social responsibility (CSR) in the Factory.

The cited practices confirm that it is reasonable to accept the attitudes of organizations taking into account the operationalization of the CSR concept, especially in the context of the desired level of food safety. It is justified to state that the cases of enterprises that take measures to implement the CSR concept through exceeding current legal regulation e.g. due to the lack of adequate regulations or by using stricter requirements already imposed by current legal acts are valuable. It can be found that this understanding of corporate social responsibility is conducive to reduction in the business risk while these activities should be considered within the categories of taking civil liability for the damages that can be caused by the product to health and safety of consumers as final users. This leads to the presumption that the activities taken in this area should ensure the competitive advantage in the global market of crystal glass products.

The presented issues should be the subject of broader research and public debate, as the standards of social responsibility become a challenge for managers, especially when dealing with issues related to food safety, and therefore health of the customers. They should also be taken into consideration during formulation of specific solutions in other enterprises that operate in similar conditions of manufacturing of glass products for contact with foods. The example of the Factory presented in the study should be considered as an example of good practices. From the viewpoint of practical application, the investigations contained in this study can be used in order to popularize, among entrepreneurs, the examples of good practices aimed at ensuring food safety while implementing the CSR assumptions. This means rising the awareness of both employers and employees to search for non-standard approaches to the problem discussed.

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