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**The Role of UN SDGs in Business  
Sustainability Transformation: the Case of  
Food Retail Companies**

Master's Thesis by the 2<sup>nd</sup> year student  
Concentration – International Business  
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## АННОТАЦИЯ

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Описание цели, задач и основных результатов	<p>Цели устойчивого развития Организации Объединенных Наций (ЦУР ООН или ЦУР) и модель устойчивости бизнеса (УБ) были исследованы ранее, однако в совокупности не были применены к конкретной отрасли, хотя и считаются специфическими для каждого сектора экономики. Данное исследование объединяет эти два понятия и использует в практическом исследовании компаний продуктовой розницы.</p> <p>Цель исследования состояла в том, чтобы определить роль ЦУР ООН в трансформации УБ для компаний продуктовой розницы. Эта роль находит свое отражение в определенных изменениях в способе ведения бизнеса после принятия ЦУР ООН и интеграции их в деловую практику компаний продуктового ритейла. Изменения в ведении бизнеса, на которых концентрируется работа – это изменениями в управлении, процессах и продуктах компании.</p> <p>В результате эмпирического исследования среди компаний продуктовой розницы были выделены четыре группы в соответствии с особенностями их «поведения» в период 2015-2019 гг., а именно реакции на внедрение ЦУР ООН: а. компании, которые проигнорировали ЦУР и не повысили свой уровень УБ; б. компании, которые были «по-настоящему устойчивыми» до появления ЦУР; в. компании, которые не повысили уровень УБ после интеграции ЦУР; и г. компании, которые повысили уровень УБ после интеграции ЦУР. Более половины проанализированных компаний попали в последнюю группу.</p> <p>Магистерская диссертация показывает, что роль ЦУР для компаний продуктовой розницы заключается, в первую очередь, в содействии трансформации модели УБ с уровня 2.0 на уровень 3.0. Интеграция ЦУР, не подкрепленная изменениями в управлении, процессах и продуктах, не способствует трансформации модели УБ. В конце работы приведены рекомендации менеджерам продуктовой розницы в отношении конкретных изменений в способе ведения бизнеса на основе выводов работы.</p>
Ключевые слова	Цели устойчивого развития ООН, ЦУР, устойчивость бизнеса, корпоративная устойчивость, корпоративная социальная ответственность, устойчивое развитие, устойчивый бизнес, продуктовая розница

## ABSTRACT

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Master Thesis Title	“The role of UN SDGs in business sustainability transformation: the case of food retail companies”
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Description of the goal, task and main results	<p>Such concepts as United Nations Sustainable Development Goals (UN SDGs, or SDGs) and business sustainability (BST) proved to be significant to business, yet depending on a specific industry. In this study those concepts are combined and applied to the food retail industry.</p> <p>The goal of the study was to identify the role of the UN SDGs in the BST transformation for food retail companies. This role is reflected in certain changes in the way of doing business after the UN SDGs were issued, and integrated into business practices of food retailers. Changes in doing business that we analyzed in this paper were changes in governance, processes and products.</p> <p>As the result of empirical study, four groups were identified among the food retail companies according to their ‘patterns’ during the 2015-2019 period, namely their reaction to the UN SDGs integration: a. companies that ignored the SDGs and did not increase their BST level; b. companies that were truly sustainable before the SDGs were issued; c. companies that did not increase BST with the SDGs integration; and d. companies that increased the BST level with the SDGs integration. More than a half of the companies analyzed fell into the last group.</p> <p>Conclusively, this master thesis reveals that the role of the UN SDGs for the food retail companies is primarily to facilitate the BST 2.0 – BST 3.0 transformation, and the SDGs implementation is not contributing to the BST transformation unless it is followed by improvements in governance, processes and products of food retailers. The recommendations for food retail companies’ managers on exact changes in the way of doing business are provided at the end on the paper, based on our empirical results.</p>
Keywords	UN Sustainable Development Goals, SDGs, business sustainability, corporate sustainability, corporate social responsibility, sustainable development, sustainable business, food retail

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## **LIST OF ACRONYMS**

BST – business sustainability

CSO – Chief Sustainability Officer

CSR – corporate social responsibility

GRI – Global Reporting Initiative

MDGs – Millennial Development Goals

SD – sustainable development

SDGs – Sustainable Development Goals

NPOs – non-for-profit organizations

UN – United Nations

WBCSD – World Business Council for Sustainable Development

# INTRODUCTION

## **Relevance of the study**

In the modern world, there are global challenges influencing the future and wellbeing of humanity. Those challenges are mainly connected with the ecological sphere, such as climate change, water scarcity and food quality; social sphere, among them are extreme poverty, unemployment and discrimination; and economic sphere, for example, unequal economic development, and the need for technological development (IE Insights, 2019; United Nations Foundation, 2020).

The universal blueprint to tackle these accelerating challenges already exists and it is called the Sustainable Development Goals (SDGs), which were established by the United Nations (UN) in 2015 replacing the Millennium Development Goals (MDGs). The SDGs were signed by 193 member states and represent the common will for more sustainable future for all (United Nations, 2015).

Not only states, but also companies have already realized the role of the SDGs for their core activities. For instance, more than 9,000 companies have committed to contribute to the SDGs achievement by signing the UN Global Compact (UN Global Compact, 2019). Those companies volunteered to change their usual way of doing business towards more sustainable way or, in other words, to undertake the business sustainability (BST) transformation. At the same time, other companies have to follow their example because of the changing rules of the game.

By ‘changing rules of the game’, we mean changing requests from different groups of internal and external stakeholders – employees, customers and investors – which business should consider in order to ensure its competitiveness (Deloitte, 2017; Deloitte 2019). The stated factors enhance BST transformation and result in societal factors to be considered as the most important while evaluating annual performance (Deloitte and Forbes Insights, 2019).

Therefore, it is hard to overestimate the relevance of such topics as the SDGs and BST transformation for business practice. Considering the fact that the SDGs set the urgency for the future academic research in this field and that the implementation of the results is needed to foster the achievement of all the SDGs by 2030 (Leal Filho et al., 2018), there is the need for academic studies to support the business.

Speaking about the SDGs and BST transformation from the industry perspective, different industries have their own features of environmental, social and economic influence (BCG, 2017) and concentrate on different SDGs in their operations (UN Global Compact and KPMG, 2015). One of the industries that is regarded as having a wide impact on sustainable development (SD) is

the food retail industry. For instance, through the food retail industry almost all the population of the world in one way or another gets necessary products to eat and live. It is an intermediate between food producers and customers, and huge food retail companies have strong influence on both. Some food retail companies are very powerful indeed, for example Walmart is on the first place in the list of the largest companies by revenue (Fortune 500, 2019), presenting the vital role of the food retail industry for society.

To sum up, academic studies are essential for the UN SDGs achievement, and the role of the SDGs in the BST transformation with an emphasis on the food retail industry is a relevant topic for both theory development and practical implementation.

### **Research gap**

There are several studies that discuss the sustainable business models (Stubbs, 2019; Geissdoerfer et al., 2018; Wadin and Ode, 2019), business sustainability (Friedman, 1970; SAM Group & PricewaterhouseCoopers, 2006; Network for Business Sustainability, 2012), its modelling (Valencia-Rodríguez et al., 2019) and transformation (Dyllick and Muff, 2015; Muller and Pfleger, 2014). However, there is the lack of academic studies combining the SDGs and the BST concepts, even though the role of the SDGs has proved to be sufficient for the business.

There are four BST types, or levels, identified in the academic literature, which can be assigned to a company: Business-as-Usual, BST 1.0, BST 2.0 and BST 3.0. Switches in different elements of business models, which lead to changes in BST level of a company, are assumed as BST transformation. Each of these types of BST is characterized by unique definition, which is explained by the evolution of the concept (Dyllick and Muff, 2015). To put it shortly the BST types range from the Business-as-Usual, pre-BST type, which is an approach to doing business that accounts only for economic shareholder-related concerns (Friedman, 1970), to the BST 3.0, or ‘true sustainability’ type, which addresses the global challenges in the business model (Dyllick and Muff, 2015).

The BST concept is directly related to SD, as businesses of different types of BST in one way or another manage their opportunities and risks related to economic, social and environmental spheres, which are the main categories of SD (OECD, 2008). The SDGs are identified to bring companies closer to the BST 3.0 level (Muff, Kapalka and Dyllick, 2017), being the reflection of accelerating global challenges (Griggs et al., 2013; Bansal, 2019).

However, there are very few academic studies on the BST transformation of various industries, including the food retail industry, and none of them discussed the role of SDGs for BST from industrial perspective. Dyllick and Muff (2015) highlight two industries – food industry and

banking – however, they do not mention any practical research conducted in those industries. Simoes and Sebastiani (2017) analyzed supermarket retail chains of two countries in Southern Europe in terms of their corporate sustainability and corporate identity. Nevertheless, Simoes and Sebastiani did not link their results with the levels of the BST transformation.

In the professional literature some of the possible industry-related integrations of the SDGs have already been suggested, e.g. the guidelines for implementation of the SDGs for the consumer goods industry (covers food retail) were established (UN Global Compact and KPMG, 2015). However, the examples of the SDGs in action provided in those guidelines are not linked to any specific level of BST and thus do not highlight the exact role of the SDGs for BST transformation for food retail companies.

To sum up, although the SDGs and the concept of BST proved to be relevant for the business yet depending on particular industry, the role of the SDGs in the BST transformation has not been discussed through the industry-specific lenses, in particular, for the food retail industry. This is the research gap we are concentrating on in our study.

### **Research questions and goal of the study**

The goal of the study is to identify the role of the UN SDGs in the BST transformation for food retail companies. This role should be reflected in certain changes in the way of doing business after the UN SDGs were issued and recognized by the companies.

Therefore, the research question is the following:

- How did the practices of doing business in the food retail industry change following the escalation of global challenges addressed by the SDGs concept?

By “changes of the practices of doing business” we assume BST transformation through revision of corporate governance, processes and products (Dyllick and Muff, 2015). Those changes along with the way companies identify the role of the SDGs for themselves reflect the actual role of the SDGs in the BST transformation. Thus, by answering the research question we will reach the research goal.

The objectives drawn from the goal of the study and research question are the following:

1. Analyze the concepts of SDGs and BST and their interrelation, in particular, for the food retail industry;
2. Conduct an empirical study of food retailers and identify changes in doing business as the result of global challenges worsening, along with the SDGs implementation by those companies;



3. Summarize the results of the empirical study, discussing the actual role of the UN SDGs in the BST transformation for food retail companies, and providing relevant managerial recommendations.

The object of the study is the BST types among food retail companies. The subject is the BST transformation of the food companies following the SDGs integration.

### **Theoretical basis and research methodology**

The theoretical basis of the study is classical academic articles and professional literature on the SDGs and BST concepts and their interrelation, as well as industry-specific differences, with an emphasis on the food retail industry.

Research methodology was defined based on the research question and the goal of the study. In this study we conduct qualitative exploratory research, assessing such a phenomenon as BST transformation in a new light. Our analysis is deductive, as the research is based on theoretical framework.

The source for data collection are non-financial reports of the food retail companies over 2015-2019 period, since it is the exact period covering the information the companies published before the SDGs were published and till the current date.

### **Outline of the paper**

The goal and objectives of the research defined the structure of this master thesis. It consists of introduction, three major chapters, conclusion, list of references and appendices.

The first chapter contains the literature review on such topics as SDGs and BST and their interrelation, while food retail specifics are highlighted especially.

The second chapter aims to explain the methodology for the future research in detail, justifying the companies chosen for the future analysis and the methods used further.

In the third chapter, the results of the empirical study are provided and discussed, as well as the theoretical and management implications are stated based on the research. Limitations of the study and suggestions for future research are reflected as well.

Finally, the results will be summarized in the conclusion. The answer for the research question will lead us to the goal of the study achievement, bringing both theoretical and practical value of the UN SDGs role identification for the business sustainability for the food retail industry.

# **Chapter 1. LITERATURE REVIEW**

In this chapter, we provide the literature review, with the results of the research on the relevant scientific and industry-specific literature and digital sources in the field of the SDGs and BST. Having analyzed the applicable concepts and having identified the research gap, we provide further discussion for the role of the SDGs in BST in the food retail industry.

## **1.1 UN Sustainable Development Goals**

This paragraph aims to reveal the academic literature related to the SDGs, their development, role and interrelations. Firstly, the historical perspective of SDGs development and implementation is disclosed from the sustainable development concept emergence and Millennium Development Goals (MDGs) establishment to SDGs development. Secondly, the role of SDGs for the academic research, universities, youth and the companies is addressed. Finally, the discrepancy associated with the SDGs interrelations and its consequences are considered.

### **SDGs in the historical perspective**

The background of SDGs lies in several periods of evolution, where all of them are of the different length and development intensity level.

The sustainability as the term first appeared in 18<sup>th</sup> century, when the first concerns about the societal and environmental impacts of the industrial production were expressed (Portney, 2015).

During the 19<sup>th</sup> century, those issues grew in terms of their power and influence, and skyrocketed during the 20<sup>th</sup> century. The main challenges that were discussed by that time were “ozone depletion, global warming, and other environmental problems associated with raising the standard of living of the world’s population” (Britannica, 2014).

In response to those challenges and in order to develop the new path for the 21<sup>st</sup> century, in 1983 the UN appointed Gro Harlem Brundtland, a former Prime Minister of Norway, to create a new organization independent from the UN, which would concentrate on environment and development, and strengthen international cooperation. That is how the World Commission on Environment and Development (WCED) appeared, also known as the Brundtland Commission (Portney, 2015).

In 1987, the WCED combined some of the ideas that had been put forward for years in the report called “Our Common Future”, which provided a definition of sustainable development. According to that definition, sustainable development takes place when the needs of the present

are met without compromising the ability of future generations to meet their own needs (United Nations General Assembly, 1987). Thus, the first official definition of SD appeared.

The SD set the agenda to confront the challenges that the humanity faced at that time, however, a more structural approach was needed in order to be easily implemented and commonly used for the common good. Thus, in 2000 the MDGs were developed (United Nations General Assembly, 2000). The MDGs were 8 goals, connected to the reduction of poverty and child mortality, achieving primary education, etc. The goals were set for the first 15 years of the 21<sup>st</sup> century and as it was reported in 2015, were achieved, some of them quite successfully. For example, for the MDG 1 (*Eradicate extreme poverty and hunger*) the extreme poverty rate was decreased from 47% of population in 1990 to 14% in 2015 (United Nations, 2015). The same patterns were shown for the rest of the goals. Thus, the goals that were set by UN proved to provide sufficient results, however they lacked clearly stated indicators. The communities, governments and businesses were ready for the goals for the coming 15 years, which would improve the MDGs shortcomings.

In 2015 the publication of a comprehensive and robust road map of targets and indicators underlying the Sustainable Development Goals (SDGs), consisting of 17 goals and 159 targets specifying the goals, followed by specific indicators, which keep being adapted, e.g. the latest update was on the 3rd of March 2020. The SDGs remain a milestone in the alignment of not only developing but also developed countries on the path to sustainable development (United Nations General Assembly, 2015).

Today all the challenges that were reflected in SDGs concept continue to accelerate, bringing us to the fact that the concept of the SDGs is the alarmist agenda for the survival of global population (Griggs et al., 2013). For example, tackling such challenges as climate change, water scarcity and food quality; extreme poverty, unemployment and discrimination; unequal economic development, the need for technological development and others (IE Insights, 2019; United Nations Foundation, 2020) is no longer a question of being humane, but rather the question of humanity living on our planet (Bansal, 2019). If these global challenges escalate, the shifts in global economy will be inevitable. Hence, even though such a concept as the SDGs is not perfect and continues to be criticized (Bali Swain, 2017), so far it is the only agenda for global reunion towards addressing the global challenges and saving humanity.

In conclusion, taking into account the existing background in the form of SD concept and MDGs set prior to SDGs, the SDGs emergence was a logical continuation and alarmist response to the global challenges that appear and deteriorate.

## **The role of the SDGs**

The role of the SDGs is hard to overestimate. They present the plan to achieve a better and more sustainable future for all (United Nations, 2015), which was accepted by 193 member states of UN. Thus, most countries of the world have agreed to commit to the better life for everyone. The global challenges that SDGs were created to tackle are needed to be addressed in collaboration of the government, companies, not-for-profit organizations (NPOs), other institutions and the society represented by each member.

Moreover, after the SDGs were established, they have been gaining popularity among the stakeholders of various companies of various countries. Thus, several articles have appeared on the topic of the SDGs role and implementation in various fields and by different groups of communities.

First, we would like to draw the attention to the article written by Leal Filho et al. (2018), where the authors suggest turning the traditional academic research to the field of SDGs, seeing the opportunity for the contribution of the academic society for the SDGs achievement. They point out that the commitment of the member countries of the UN to attain the SDGs added the sense of urgency to performing the quality research on SD and the implementation of its results.

Second, the pressure for the universities for leading the implementation of the SDGs in cross-sections is discussed by El-Jardali (2018). Unlike the previous group of authors, El-Jardali concludes on the impossibility of academicians to lead the implementation of SDGs on their own. The author considers that in order to address the challenges, the change in mindset and culture of a university is needed as well as the same changes in the government. In addition, the dialog between the university and the government has to take place for the rising up to the global challenge together.

Third, the special events take place in order to show the role of SDGs to the youth as they are the leaders of the future and can contribute to the SD, e.g. the seminar for the youth organized by the University of Sargodha, Pakistan (Frontier Star, 2018). The seminar stressed upon the youth's role in achieving the SDGs, while the main aim of the event was to broaden the horizon of the students and suggest them to take action for the common future.

Forth, the companies play one of the most crucial roles in SDGs achievement, and under the pressure of external stakeholders or by the internal initiative, a wide range of them have signed the UN Global Compact to suggest possible contributions. Global Compact remains to be the largest corporate social responsibility initiative of the world with more than 9,000 companies having signed the commitment to establish their business in a way that it will contribute to the SDGs achievement. The signatories are coming equally from the developed and developing countries, representing almost every industry sector and size (United Nations Global Compact,

2019). Thus, the wide range of the companies confirm the role of SDGs for their operations and strategies formulation and execution. The guidelines for the SDGs integration into the corporate strategy are explained in the SDG Compass, developed by UN Global Compact, Global Reporting Initiative (GRI) and the World Business Council for Sustainable Development (WBCSD) (SDG Compass, 2015).

The companies that implement SDGs into their business practices, and more importantly their strategy, achieve additional benefits, e.g. better risk management and investment opportunities, which results in their corporate competitiveness increase (García Navarro and Granda Revilla, 2020). Thus, the role of SDGs is high for the corporate success.

However, there are companies that have not integrated the SDGs into their strategy yet, and even the companies that tend to be considered as the sustainability leaders are among those ones. Several ways of treating the SDGs by companies were identified through the empirical studies, including documentary analysis and interviews (Blagov and Petrova-Savchenko, 2017; Blagov and Petrova-Savchenko, 2019). Those ways of treating the SDGs can be summarized into the four wide explicit categories, such as:

- No SDGs integration;
- Mention of the SDGs in stakeholder communication, e.g. non-financial reports;
- Explanation of practices in align with the SDGs;
- Basing sustainability strategy on the SDGs.

Thus, even though the role of the SDGs is considered wide and beneficial for business, especially when the SDGs are incorporated into the corporate strategy, not all the companies use that opportunity already. Moreover, even among the sustainable leaders there are some that have not implemented the SDGs into their strategy. This brings us to the fact, that actual role of the SDGs for the business has to be discussed further.

Finally, the SDGs are the call for collectively stewarding sustainability transformation, considering that all the actors, including states, research institutions, businesses and civil society, are interested in that transformation (Kuenkel, 2019).

To sum up, from the moment of their establishment SDGs play crucial role for the communities, academic society, businesses and all the possible stakeholders. The SDGs formulate the global agenda, which helps its supporters to unite their endeavors towards the most urgent issues all the citizens of the Earth experience nowadays. However, in terms of the SDGs implementation into the corporate practices, different levels of SDGs integration depth are identified even among the sustainability leaders, starting from no integration and no publicly stated intentions towards it and finishing with the SDGs consideration while developing the corporate strategy.

## **The SDGs' interactions**

Even though the SDGs acquired a huge respect in the governments, communities and businesses, addressing the urgency of the global challenges that the humanity is facing, a critical approach is needed in order to implement the SDGs. In fact, scientific research has proven that both synergies and trade-offs take place when the SDGs interact or are established together on either macro- or microeconomic level, which requires a thoughtful analysis before the SDGs implementation.

A theoretical framework has been proposed to describe the relationship between the SDGs on macroeconomic level. As the framework proved, the SDGs are implicitly interdependent and it may happen that conflicting interactions between the SDGs may result in a divergent outcome. Therefore, the policies that foster cross-sectoral and cross-goal synergetic relations will play a key role in the operationalization of the SDGs agenda (Nilson et al., 2016).

Pradhan et al. (2017) agreed with the results of the previous author and continued the abovementioned macroeconomic research, conducting the statistical analysis on the SDGs pair interaction. The authors concluded on the synergies found indicate a strong alignment of the SDGs, where progress towards one goal could exploit the fulfillment of the other goals. For example, the SDG 3 (Good health and well-being) is mostly presented in the synergy pairs, while the SDG 12 (Responsible consumption and production) in contrast appears more often in the trade-off pairs.

The findings of the Pradhan et al. (2017) do not contend with the official results of International Council for Science (ICSU) (2017), which applied its expert judgment in order to identify causal and functional relations between SDGs. It concluded that the most of the synergies were identified for the four SDGs: SDG 2 (Zero hunger), SDG 3 (Good health and well-being), SDG 7 (Affordable and clean energy) and SDG 14 (Life below water).

However, even though the results of previous research, which are discussed above, are related to macro level, they can be applied for corporate level as well, as the recommendations based on the results are provided for policymakers, while the companies are policymakers as well, at least for employees, customers, and the whole value chain. Indeed, companies develop codes of business conduct, corporate policies and strategies, setting the principles of their operations. These rules should consider the same interrelations between the SDGs that we have just discussed.

Thus, scientific research has shown that the SDGs interaction synergies and trade-offs take place, requiring careful analysis prior to the implementation of the SDGs. This offers additional guidelines for businesses, showing that it is possible to multiply the shared value provided by setting the goals that bring synergies or slower the value down by choosing the ones that are proved to be more in trade-offs.

To sum up, in this paragraph, the research relevance has been proved considering the historical development and the role of the SDGs for the governments, research institutions, business and communities. Possible depth levels of SDGs implementation for the company were identified, proving that the role of SDGs for the business can be different yet being important. Furthermore, a deeper view on the SDGs concept was discussed with respect to the interactions of the SDGs and challenges connected.

## **1.2 Business sustainability transformation and its interrelation with the UN SDGs**

This paragraph aims to reveal the literature related to the business sustainability (BST) and its transformation, sustainable business models creation and sustainable development (SD) concept implementation into the decision-making and strategic goals set by the company. Moreover, we identified the SDGs implementation into the corporate practices of different BST types, or levels, based on the existing literature. Finally, simultaneous coexistence of different BST types is discussed at the end of the paragraph, and all the main findings on each type are summarized.

To begin with, there are several definitions of the BST, which differ from each other in the conceptual level. This brings us to the fact that the BST is not a stable concept, and it is evolving and transforming in order to address the external and internal challenges of a company. Taking the frequent changes of business sustainability into account, Valencia-Rodríguez et al. (2019) have developed a framework for modeling business sustainability based on process dynamics and combining elements of computational, quantitative and dynamic system analysis. The authors provided more technological view on the subject with both theoretical algorithmic modelling and practical case study. In the study the quantitative analysis is provided, which is a rare case in this field, and the paper can be considered of practical and theoretical value. Moreover, in the study no exact levels of BST were identified, thus treating the BST as a continuous rather than discrete variable. However, in our research we concentrate on the concept of BST with the defined number of types of BST being mainstream, which would provide a more structured view on the subject and allow to conduct qualitative analysis.

Therefore, in this study, we are developing the typology suggested by Dyllick and Muff (2015), since the authors managed to categorize the concept of BST in a clear and logical way, stating that “as companies move to more ambitious and more effective levels of BST, <...> important shifts take place” (Dyllick and Muff, 2015), resulting in BST transformation. Based on the results of the research of abovementioned authors, we provide further discussion on such BST

types as the Business-as-Usual, BST 1.0, 2.0 and 3.0, their differences and crucial characteristics, as well as draw the role of the SDGs for each of BST types, based on literature review.

In addition, other authors that were discussing BST adopted the concept created by Dyllick and Muff (2015), e.g. Sardá and Pogutz (2019), slightly changing the terminology from BST to Corporate sustainability 1.0, 2.0 and 3.0, however mentioning that they base their findings on the Dyllick's framework (Sardá and Pogutz, 2019). Therefore, we can state that in the academic world the concept that we are applying for our research is considered as reliable, as well as worth developing.

### **Business-as-Usual**

It can be said that the Business-as-Usual type was defined by Friedman (1970) as “the business of business is business”. This paradigm is based on a purely economic view of the company and its processes, such as cheaper resources access, effective and efficient processes and a strong market position in order to generate more profit and shareholder value. However, these concerns are connected with the significant externalized costs, which are neither measured nor declared. The Business-as-Usual firm's organizational perspective is inside-out, meaning that the business and its objectives are the main points of the future planning and action (Dyllick and Muff, 2015).

Therefore, for Business-as-Usual it is hard to state the existence of BST, as there is only one of the dimensions taken into account, the economic one, ignoring the social sphere and the environment. The SDGs are not anyhow integrated into the strategy or operations of Business-as-Usual companies.

To sum up, this type is out of sustainable ways of doing business and is considered to be outdated (Porter and Kramer, 2011). Nevertheless, such firms still do exist, but the legitimacy of their presence is at question.

### **Business Sustainability 1.0**

The BST 1.0 type is a step towards sustainability of an enterprise. SAM Group and PricewaterhouseCoopers (2006) described the vision of the BST 1.0 in their concept of corporate sustainability as following: “Corporate sustainability is an approach to business that creates shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments”. The corporate sustainability in this case is used as the synonym for the BST, presenting earlier stages of the term development.



The BST 1.0 may be also referred to as the refined shareholder value management. It appeared when the new business challenges appeared on the market and were connected to the environmental and social concerns. Thus, the business is interested in addressing those challenges as well as economic ones, and the three-dimensional concerns appear, but the main purpose for this remains the shareholder value retention and creation. Even though for this BST type the sustainability management can be present, its main role is increasing the shareholder value. Moreover, the inside-out perspective takes place as well (Dyllick and Muff, 2015).

Companies of this type of BST apply their corporate social responsibility (CSR) in order to strengthen their economic performance. In fact, economic and management research has found an empirical connection between CSR and economic performance, and the positive effect CSR may bring to a company's reputation. The researches show that CSR practices influence the effects that have a positive impact on corporate credibility, help companies to boost their reputation for the investors (Gonzalez-Perez and Leonard, 2013).

Moreover, since certain initiatives are taken by a BST 2.0 company, it may report on the results and impact through non-financial reporting, e.g. through social or environmental reports (EY, 2014).

In terms of the SDGs implementation, mentioning the SDGs in the non-financial reporting or other means of communication with stakeholders takes place.

To sum up, BST 1.0 is only the first step towards 'true sustainability'. It starts to bring more values to the communities it operates in with the main one being brought to the shareholders. In addition, the SDGs are mentioned in stakeholder communication.

### **Business Sustainability 2.0**

The perception of BST 2.0 type, which we use in this paper, is well seized by the definition used in the Network for Business Sustainability (2012): "Business sustainability is often defined as managing the triple bottom line – a process by which firms manage their financial, social and environmental risks, obligations and opportunities. These three impacts are sometimes referred to as people, planet and profits".

The BST 2.0 is considered a sustainable alternative to the previously stated BST types, ending the era of the business prospering at the expense of society and ecology. Porter and Kramer (2011) described that idea as the win-win of business and community in their article "Creating Shared Value", which won the McKinsey Award of the 2011 (Harvard Business Review, 2012). The authors claim that a business should not consider societal issues as a way of corporate social responsibility implications, instead, it should be a matter on strategic level, enlarging economic values of the business by increasing the value created for communities (Porter and Kramer, 2011).

Moreover, BST 2.0 companies create value not only as a side effect of their commercial activities, but as a result of specifically identified goals and initiatives addressed to particular sustainability issues or stakeholders. Thus, the shift from the shareholder to stakeholder value takes place. These values not only are resolved through specific programs, but also are measured and reported, mainly through non-financial reporting. The fundamental objective for BST 2.0 firms is to create, produce and report measurable results in well-defined SD areas while doing so in an economically efficient and cost-effective manner. However, the perspective of a company's operations and strategy setting remains inside-out (Dyllick and Muff, 2015).

As it was stated before, for the BST 2.0 the non-financial reporting takes place in order to evaluate the values created for the stakeholders. One of the most popular and widespread initiatives in this field is GRI. It suggests the recommendations on the interaction of stakeholders in order to set the material topics for the company, offers indicators for the assessment of the company's progress in non-financial sphere and further reporting, and states the need for the reassurance from the professional audit companies for the confirmation of the reliability of the data provided in the report. The main topics covered by the latest version of GRI, GRI Standards, include Universal standards consisting of General disclosures and Management approach, and Topic-specific standards: Economic, Environmental and Social (GRI Standards, 2019). All the topics should be balanced in order to report full information on the corporate non-financial performance. The form of non-financial report for this type of BST is considered to be sustainability report, which goes as a separate document in addition to the financial statement, management commentary, governance report and remuneration report (EY, 2014).

In addition to discussed standards of non-financial reporting, the SDGs reporting may take place. It is not clear if this type of reporting appears in BST 2.0 firms or only in BST 3.0 firms, since there are no academic studies that would raise this issue, nevertheless we believe that since the SDGs have not been implemented into the corporate strategy yet, quantitative results on the SDGs achievement cannot be shown. Therefore, the SDGs reporting is discussed in the BST 3.0 section of this paper. However, BST 2.0 companies recognize the SDGs, and their practices are explained in align with the SDGs.

To conclude, the BST 2.0 is the huge next step towards the 'true sustainability', which a responsible company can undertake. This BST type companies are characterized by taking action for the stakeholders, measuring the results of it and reporting about them using the global standards. As for the SDGs role for BST 2.0, they structure the company's initiatives, which can later be stated in non-financial reporting. However, the SDGs are not deeply considered when the corporate goals are set, and the quantitative results on them are not reported.

### **Business Sustainability 3.0**

So far, the final step towards the ‘true sustainability’, the ‘true sustainability’ itself, is the BST 3.0. Dyllick and Muff (2015) define it as follows: “Truly sustainable business shifts its perspective from seeking to minimize its negative impacts to understanding how it can create a significant positive impact in critical and relevant areas for society and the planet. A BST 3.0 firm looks first at the external environment within which it operates and then asks itself what it can do to help overcome critical challenges that demand the resources and competencies it has at its disposal”.

The main difference between BST 2.0 and 3.0 is the shift changing the perspective from the inside-out to the outside-in. ‘Truly sustainable business’ changes its focus from trying to mitigate its negative impacts to recognizing that it can have a direct positive impact on society and environment. Making a positive contribution to solving sustainability problems and thus serving the common good is becoming the main goal of a truly sustainable enterprise. The organizations of the BST 3.0 type are promoting accountability, exchanging best practice, identifying common rules and setting standards. They collaborate in sectorial and cross-sectorial level, which strengthen the influence and outreach of their sustainability approaches. In simple words, they are changing the rules of the game (Dyllick and Muff, 2015).

In order to achieve the BST 3.0, organizations have to implement the sustainability goals into their strategy formulation. However, it does not mean that those organizations should transform into NPOs or change their business models completely, even though we discuss these solutions later. In contrast, business can remain business, taking new opportunities for the common good creation. This statement is supported by the range of the academic articles of recent years, where the need to consider the external opportunities in global challenges is suggested, such as Rajnoha et al. (2019), Engert, (2016) and Drucker (2010), discussed further.

To begin with, setting of strategic business objectives should be executed with respect to internal and external conditions, including the trends in the industry for sustainability challenges addressing (Rajnoha et al., 2019). While the relation between business strategy or strategic business goals of planning and sustainability concerns is extremely tight (Engert, 2016), it is very important to put economic performance on every decision for management and organization in order to justify the existence of the company (Drucker, 2010). Thus, the truly sustainable companies nowadays have to consider not only the positive effect for the society and the environment, but also for the company itself.

Moreover, some authors suggest the change in the whole business model in order to achieve true BST. The empirical study of an Australian B-Corp, being one of the possible sustainable business models, showed, that it tends to have challenges in balancing the economic and social

aspect with the environmental one (Stubbs, 2019). Other authors suggest different business models for sustainability, for example, circular business models, social enterprises, bottom of the pyramid solutions and product-service systems (Geissdoerfer et al., 2018). In order to provide a new explanation to alternative sustainable value creation approaches Wadin and Ode (2019) combined contingency theory and business models, thus providing the insights on the sustainable business models in dynamic environments. To sum up, all of those business models are possible to operate for the BST 3.0, considering that by definition they address the global challenges, but are not the only possible way of being truly sustainable.

There are different ways for a company to address global challenges that the world is facing. In addition to using the existing market opportunities, which Porter and Kramer (2011) discussed and, we have already mentioned as win-win (BST 2.0), the companies may add value to society even if there are no clear opportunities for that. In those cases they either do nothing beneficial for society so far (win-lose), or act responsibly though shrinking short-term financial results (lose-win). Considering the fact that acting responsibly makes a business legitimate, a company should become a norm-setter rather than do nothing, which at the same time allows avoiding lose-win situation through in- and cross-industry integration and cooperation (de los Reyes et al., 2017). Setting in- or cross-industry norms is a way to reach the true BST even when there are no clear opportunities for that, without completely losing.

Another way to address the global challenges and to move to the BST 3.0 level is to take a look at the SDGs, assess the company's opportunities in addressing any of them and to implement several SDGs into the firm's strategy. The framework describing the process has already been developed by UN Global Compact, GRI and the WBCSD, and is known as SDG Compass. The basic process is as follows: Understanding SDGs – Defining priorities – Setting goals – Integrating – Reporting and communicating (SDG Compass, 2015). During the process, it is preferable to pick not more than four SDGs while setting the goals, as the UN Global Compact suggests (UN Global Compact and KPMG, 2015). If a company switches its focus towards SDGs in strategy setting, it directly reaches BST 3.0 (Muff, Kapalka and Dyllick, 2017), given that it does follow the strategy it created. In this case the corporate perspective switches from inside-out to outside-in.

We would also like to argue here that advanced BST 3.0 companies should go further and consider the synergies and trade-offs of the SDGs discussed in the previous paragraph in order to multiply the value created through the SDGs achievement.

Moreover, as a part of non-financial reporting that has already been discussed for the BST 2.0 type, SDGs reporting takes place in the BST 3.0 companies, since the SDGs are recommended for implementation into strategy and thus qualitative results can be gathered. Rosati and Faria (2019a, 2019b) conducted several researches in this sphere. Their first study aims at finding

patterns in SDGs reporting in different countries. The results show that companies reporting on the SDGs are more likely to be based in countries with higher rates of climate change risk, national CSR, education investment for the third parties, indulgence and individualism, and lower levels of business alignment, employees' rights protection, power distance and long-term focus (Rosati and Faria, 2019a). This shows that the companies based in those countries are more likely to address the global challenges as the need for that is urgent.

By integrating information provided by the GRI and Orbis, the second study examines, which business-specific variables influence early adoption of SDG reporting. This study shows that early implementation of SDG reporting is associated with a larger size, a higher level of intangible assets, a higher contribution to sustainability frameworks and external compliance, a higher proportion of women directors and a younger company's board of directors (Rosati and Faria, 2019b). Thus, the companies that are more sustainable according to their non-financial disclosures are more likely to contribute to sustainability frameworks such as SDGs. Therefore, we can draw a conclusion that a certain level of BST practices is needed in order to move to further levels and implement the SDGs into the corporate practices.

Thus, the two discussed studies show that the SDGs reporting depends on the institutional situation of the country, and the internal factors of the company, Thus, the SDGs integration into reporting depends on the country and the level of BST practices.

To add another comment on the non-financial reporting for the BST 3.0, the integrated report takes place compared to the previous BST type, where the most popular form of report is sustainability report. The main difference between those types of reporting is that the integrated report provides wide scope of information in addition to non-financial results stated in sustainability report: corporate governance, operational and financial results, and management commentary are included into an integrated report. In fact, before integrated reporting started to be implemented in practice, all those topics were covered by separate reports, so an integrated report for a certain period, e.g. one year, combines all other reports on the mentioned topics for that particular period. By combining those spheres in one report, a company shows the whole process of its value creation, which is concentrated not only on annual financial statements but also on long-term investments to intangible assets, e.g. employees and community (EY, 2014). Thus, integrated report serves as a sign of the advance level of BST practices development, showing that the company is managing all its business processes, including ecology- and social sphere oriented ones, together.

If we further consider the development of the topic in the professional and market-specific literature, there are ways suggested to implement the SDGs for the business and address the challenges faced with the help of technology (World Economic Forum, 2019). However, in this

paper we are not concentrating on the technological implementation of SDGs, thus we are not developing those findings further.

### **Coexistence of different BST types**

Nowadays all four BST types coexist with even industry leaders being representatives of early BST types. The will to move forward ‘true sustainability’ depends on internal opportunities and motivations of a company, including motivations of its leaders and employees (Grayson and McLaren, 2011), which can be reluctant to changes and do not always see the need for them.

At the same time, there are factors pushing business to become more sustainable. For, example, stakeholder expectations, such employees’ expectations, 80% of which claim to work for a company with a good reputation for environment responsibility, and customers’ expectations, 90% of which are ready to switch brands to support a good cause (Deloitte, 2017). Moreover, shareholders’ expectations switch during the latest years as well, and more than 80% of mainstream investors make decisions considering sustainability disclosures (Deloitte, 2019). Thus, the ‘rules of the game’ for business are changing, and sooner or later sustainability will become not just competitive advantage, but rather common need and barrier for doing business.

Furthermore, companies themselves do understand the importance of more responsible attitude towards ecology and social sphere. For example, according to the survey of more than 2,000 global executives from 19 countries coming from all major industry sectors, the societal impact (e.g., diversity, inequality, environment) is considered the most important factor while evaluating annual performance (Deloitte and Forbes Insights, 2019).

Moreover, to determine corporate attitude towards moving to ‘true sustainability’ it is interesting to follow the companies’ behavior during the global crises connected to societal challenges, and the latest example is corporate actions towards fighting COVID-19. “For businesses facing an existential threat – those in travel or retail, for instance – [showing up in this crisis with humanity] may not be an option. At the other end of the spectrum there are, of course, opportunists seeking to profiteer from this tragedy. But in the middle are countless companies – many more than we could have predicted – showing their better side” (Polman, Sisodia and Tindell, 2020). Those companies are cooperating with their rivals, reorganizing their production lines and performing philanthropy, because of the common responsibility, which people working for those companies feel either internally, or externally. The authors suggest that in the future there will be more ‘black swans’ like this pandemic, and the lesson learned from this one is that companies need to prepare for future crises with “sound balance sheets, caring leadership and genuine compassion” (Polman, Sisodia and Tindell, 2020).

Thus, global challenges escalation is enhancing business to move further to ‘true sustainability’, but it does not mean that all the businesses will reach this level in the future due to their internal prospects and ambitions.

To conclude, the BST has transformed from its early Business-as-Usual type to BST 1.0, 2.0 and 3.0. The number of studies on the topic shows that nowadays the true BST is becoming more urgent and connected with the SDGs concept, which was created to tackle the most essential problems the humanity is facing nowadays. However, each particular business is not necessarily moving towards ‘true sustainability’, and we cannot say that it should do so, since internal opportunities and motivations should be considered. Nevertheless, we cannot deny that external factors, such as stakeholder expectations, are pushing the companies to become more sustainable.

Key findings for every BST type, including key shifts being signs of business sustainability transformation, are summarized in Table 1. The table represents four types of BST suggested by Dyllick and Muff (2015) and further adopted by Sardá and Pogutz (2019), and summarizes the findings from literature review that we have conducted so far. As mentioned above, all the BST types can coexist and are presented nowadays in the global economy.

### **1.3 Business sustainability transformation in the food retail industry**

In this paragraph, the patterns of BST transformation that have previously been discussed in the literature are revealed for the food retail industry. We will start by the discussion of the relevance of BST transformation for the food retail industry. Then we will consider the step-by-step transformation of the food retailers from the Business-as-Usual level, to BST 1.0, 2.0 and 3.0 and draw conclusions on the industry-related practices that refer to each of the levels. Finally, the final research question will be formulated and theoretical framework summarizing our findings will be built.

#### **Industry specifics: food retail industry**

To begin with, it should be said that different industries have their own features of environmental, social and economic influence (BCG, 2017). The food retail industry is one of the industries that is regarded as having a wide impact on SD with large food retailers influencing both suppliers and customers’ habits. In fact, the relation between food retail companies and SD is bidirectional: the companies’ competitive advantage depends on their sustainability as well, as most food retailers claim (Oliver Wyman, 2019).

Table 1. Summary of the key findings on four BST types

BST type (typology by Dyllick and Muff, 2015; Sardá and Pogutz, 2019)	Business-as-usual (term by Friedman, 1970)	Business Sustainability 1.0 (term by SAM Group and Pricewaterhouse- Coopers, 2006)	Business Sustainability 2.0 (term by Network for Business Sustainability, 2012)	Business Sustainability 3.0 (term by Dyllick and Muff, 2015)
Approach (Porter and Kramer, 2011; de Reyes et al., 2017)	Win-Lose	Win-Lose	Win-Win	(Lose)-Win
Concerns (Dyllick and Muff, 2015)	Economic concerns	Three-dimensional concerns	Three-dimensional concerns	Starting with sustainability challenges
Values created (Dyllick and Muff, 2015)	Shareholder value	Refined shareholder value	Triple bottom line	Creating value for common good
Organizational perspective (Dyllick and Muff, 2015)	Inside-out	Inside-out	Inside-out	Outside-in
Examples of activities and tools used (various authors)	No activities towards SD	CSR for building reputation (Gonzalez-Perez and Leonard, 2013)	GRI Standards for non-financial reporting (GRI Standards, 2019)	SDG Compass (2015), SDGs reporting (Rosati and Faria, 2019a, 2019b)
Types of corporate reporting on sustainability (EY, 2014)	No sustainability reporting	Social or environmental reporting	Sustainability reporting	Integrated reporting
Extent of the SDGs implementation (based on Blagov and Petrova-Savchenko, 2017; Blagov and Petrova-Savchenko, 2020)	No SDGs integration	Mention of the SDGs in stakeholder communication, e.g. non-financial reports	Practices are explained in align with the SDGs	Sustainability strategy is based on the SDGs  <i>Advanced level – the SDGs interaction implication</i> (Nilson et al., 2016; Pradhan et al., 2017)

Source: various sources, all integrated in the table.



At the same time, there is a lack of academic research for the food retail industry in terms of BST. The food retailers argue that the lack of models and methodologies that would support corporate sustainability definition, development and implementation is one of the obstacles preventing their businesses from becoming more sustainable (Simoes and Sebastiani, 2017), thus the recommendations on the BST in connection with the SDGs would be of a high practical value for this particular industry.

There are other industries that lack academic research on the stated field, however in order to conduct wide and deep analysis we decided to concentrate on one. The possibilities for generalization will be further discussed as well as future research suggestions for cross-industrial analysis.

Moving to the existing research on BST and SDGs for the food retail industry, Dyllick and Muff (2015) discussed the characteristics that align to each BST type in the food industry, namely changes in governance, processes and products, and the examples to some extent can be applied to the food retail industry. The main argument for that is the fact that huge retailers have their own private label brands (Oliver Wyman, 2019), which they treat as if they produce them: the ingredients are discussed with the producers, and the production process is often controlled more precisely than for all other goods.

Furthermore, Simoes and Sebastiani (2017) analyzed four supermarket retail chains of two countries in Southern Europe, but the authors did not intend to draw conclusions on the types of BST of the companies, since they mainly sought interdependence between corporate sustainability and corporate identity.

In addition, there are professional guidelines developed for SDGs implementation in the chosen industry (UN Global Compact and KPMG, 2015). Those guidelines include suggestion on the contribution of food retailers for each of the SDGs, giving examples of other retailers and FMCG companies. This paper can be considered as the main one in terms of the SDGs execution for the food retail industry, but it does not align practices to any BST type among the food retail companies.

Conclusively, considering the lack of research combining the SDGs and BST concepts for the food retail, *research gap* can be formulated. Although SDGs and BST concepts proved to be relevant for the business yet depending on particular industry, the role of the SDGs in the BST transformation has not been discussed through the food retail industry lenses.

## **Theoretical framework**

To address the research gap, we need to apply the general theoretical framework, which combines the results of existing research on such topics as BST and SDGs, to the food retail industry. Thus, let us further discuss the results of the research of Dyllick and Muff (2015), being the only one that provides examples of real practices aligned to each BST type. Examples are provided for governance, processes and products changes that are unique for each BST type. Some of them were provided for the food industry and could be possibly applicable for the food retail industry, as it was mentioned before, thus we provide them to test further during the empirical study. Additional conclusions will be drawn for the SDGs concept.

*Business-as-Usual.* For Business-as-Usual companies short-term results matter the most, and governance, processes and products are short-term result oriented.

*Business Sustainability 1.0.* Moving to the next BST level, as for the governance, the sustainability is established by reacting systematically to stakeholder concerns, not only by establishing policies and codes covering key issues in sustainable procurement, product development and security, marketing and communication, but also by creating institutional, management and board frameworks for effective management, monitoring and auditing.

Speaking about the processes, energy and water efficiency, greenhouse gas reduction, sustainable and fair sourcing, sustainable manufacturing and transport need to be implemented. In particular, for the food industry sustainable and fair sourcing is a major concern considering palm oil, soybean, cocoa, coffee, tea, meat or fish, and their verification and certification.

What regards to products, the BST 1.0 implies that the food industry should reduce its environmental footprint and enhance its social value and nutritional quality, reducing sugar, salt, saturated fats, and promoting the calories balance. Another way to increase the sustainability in the products is to eliminate waste and packaging, and provide customers with the clear and reliable data.

*Business Sustainability 2.0.* For the BST 2.0 new steps are established in the corporate governance, processes and product. For the governance objectives, sustainability objectives are to be incorporated into the planning and reporting processes to identify specific goals for the projects and private label brands to ensure that objectives are met with the fulfillment of transparency principle.

Processes and open procedures for the reduction of greenhouse gases, energy, water and waste from logistics and other operations not only must be implemented, but also must be measured and reported on.

As for the product development in the BST 2.0 companies, the environmental footprint is minimized, as well as the positive footprint is produced and measured to promote social and

nutritional quality, reduce waste and packaging and apply innovative and clearly defined and controlled manner to all the business operations.

*Business Sustainability 3.0.* Finally, the BST 3.0 companies need to evaluate sustainability challenges and define the relevant issues for them, taking into consideration their exposure as well as the company's competencies to solve those challenges. Most probably, for the food companies "the choice will be among issues like alleviating poverty, access to clean and affordable water, providing healthy and affordable nutrition, or supporting smallholder farmers and distributors in developing countries" (Dyllick and Muff, 2015). Considering the fact that the SDGs were issued the same year article was published, it is clear why the authors do not mention the SDGs in their paper. However, it is also clear now that all the mentioned issues are linked with the exact SDGs. Moreover, in further research Muff, Kapalka and Dyllick (2017) state the role of the SDGs as changing the perspective from inside-out and outside-in, thus resulting in transformation to BST 3.0

Those challenges being implemented on the strategic level influence processes and products. For food companies, products and services start to include not only healthy and balanced products, but also new forms of consumer health education and awareness, provided collaboratively with academic and public organizations, and may also include restrictions on misleading and aggressive marketing. Moreover, the changes may differ for the developing and developed countries. Therefore, changes influence such processes as partnerships building and marketing as well as pushing the communication with the customers to the new level of setting sustainable standards for them through the awareness increase.

Hence, all the findings of Dyllick and Muff (2015) for each of the BST types are summarized in Table 2. This theoretical framework will help to analyze the food retailers further.

To sum up, having conducted the literature review in this chapter, we concluded that there is the research gap in determining the role of the SDGs for BST transformation of the food retail companies, and further research is needed to achieve the *research goal* of identifying the role of the UN SDGs in the BST transformation for the food retail industry. Finally, based on the literature review the *research question* can be formulated: "How did the way of doing business in the food retail industry change following the escalation of global challenges addressed by SDGs concept?" By changes of the way of doing business we assume business transformation through revision in governance, processes and products.

Table 2. Theoretical framework for the food retail industry summarizing key findings from the literature review

BST type	Business-as-usual	Business Sustainability 1.0	Business Sustainability 2.0	Business Sustainability 3.0
Governance	Short-term financial results oriented	Policies and codes covering key issues in sustainable procurement, product development and security, marketing and communication; Institutional, management and board frameworks for effective management, monitoring and auditing.	Sustainability objectives incorporated into the planning and reporting processes to identify specific goals; Control on the fulfillment of transparency principle.	Corporate goals choice based on sustainability challenges (incl. SDGs): evaluation of the challenges and definition of the relevant issues for the company, taking into consideration the company's competencies to solve those challenges.
Processes	Short-term financial results oriented	Energy and water efficiency, greenhouse gas reduction, sustainable sourcing, manufacturing and transport.	Reduction of greenhouse gases, energy, water and waste from logistics and other operations; Goals implementation, measurement and reporting on; Innovative and clearly defined and controlled manner to all the business operations.	New partnerships with academic and public organizations to increase customer's awareness; Restrictions for aggressive and misleading marketing.
Products	Short-term financial results oriented	Reduction of environmental footprint; Enhancing social value and nutritional quality by reducing sugar, salt, saturated fats, and promoting the calories balance; Waste and packaging elimination; Providing customers with the clear and reliable data.	Minimization of the environmental footprint; Production and measurement of positive footprint to promote social and nutritional quality and reduce waste and packaging.	Healthy and balanced products; New forms of consumer health education and awareness, e.g. in collaboration with academicians and experts.

Source: based on Dyllick, T. and Muff, K. (2015). Clarifying the Meaning of Sustainable Business: Introducing a Typology from Business-as-Usual to True Business Sustainability. *Organization & Environment*; and Muff, K., Kapalka, A. and Dyllick, T. (2017). The Gap Frame - Translating the SDGs into relevant national grand challenges for strategic business opportunities. *International Journal of Management Education*.

## **Chapter 2. RESEARCH DESIGN**

This chapter aims at describing the principles, which defined the choice of the methods used for the qualitative analysis as well as the companies selected for the analysis conducted in the third chapter. The methodology described in this chapter and the future research aim at achieving the overall goal of the research, which is to identify the role of the UN SDGs in the BST transformation for the food retail industry.

### **2.1 Methods chosen for the analysis**

In this paragraph, we aim to describe the methods used for the future analysis of the companies chosen in the following paragraph. Here we state the method used to answer our research question, its advantages and disadvantages, as well as the process of our future research.

#### **Research method choice**

Firstly, to answer the research question “How did the way of doing business in the food retail industry change following the escalation of global challenges addressed by SDGs concept?” the qualitative research is needed. The purpose of the research is exploratory, since we would like to assess such a phenomenon as the BST in a new light, exploring the role of SDGs in it for the food retail companies.

During our empirical study we will apply deductive approach to analyze the qualitative data, since we have already developed a theoretical framework to be tested on the food retail companies in the first chapter.

During data analysis we will categorize the data collected. The categories have already been developed in the theoretical framework, and are as follows: governance, processes and products. These broad categories include more specific sub-categories, which are drawn from the theoretical framework (Table 3).

As a method for analysis of the food retail companies, we chose documentary analysis of written data. The data source for the research are the non-financial reports of the food retail companies, issued publicly during the 2015-2019 time period, thus, we will conduct the secondary data analysis. The start of this time period is chosen based on the year the SDGs were published, which is 2015, hence the companies did not have a chance to implement these goals and report on them covering the reporting period of 2015. The final of this time period is defined by the fact that the non-financial reports are issued after the reporting year has ended, and thus 2019 is the last reporting period, which it is possible to get information on.

Table 3. Categories and sub-categories for documentary analysis

Categories	Governance	Processes	Products
Sub-categories	1. Policies and codes; 2. Sustainability objectives implementation; 3. Sustainability objectives reporting; 4. Choice of the corporate goals; 5. Management framework; 6. Reporting type.	1. Energy efficiency; 2. Water efficiency; 3. Greenhouse gas reduction; 4. Sustainable sourcing; 5. Sustainable manufacturing; 6. Sustainable transport; 7. Sustainable supply chain.	1. Reducing packaging; 2. Enhancing nutritional quality; 3. Providing clear and reliable data; 4. Promoting of sustainable consumption; 5. Consumer health education and awareness.

Source: based on Dyllick, T. and Muff, K. (2015).

Companies tend to disclose their efforts in sustainable development field in their non-financial reports, which may be of different forms. What is important for our research, those reports usually include the information on the corporate strategy and the way it is linked to sustainable development (EY, 2014) as well as other operational processes connected to environment and social sphere. These reports collect all the information needed according to the categories and categories that we have identified.

Thus, the data needed for the analysis is accessible publicly, and we will conduct documentary analysis in order to answer the research question.

### **Advantages and disadvantages of chosen research method**

Although the secondary data has its own advantages and disadvantages, considering our research purposes the former outweigh the latter.

Possible flaws of the secondary data analysis, such as the purpose not matching the need of the planned research, difficult and costly access to the data, and unsuitable aggregations (Suanders et al., 2009), are not present in case of our research, since the non-financial reports are exactly the documents where all the needed information is disclosed, if it takes place. Another flaw is no real control over data quality, since the companies are interested in speaking more about their positive actions and less about the negative ones. We can argue here, that all the existing standards of non-financial reporting, including GRI Standards, recommend disclosing all the information in a balanced way, as well as providing audit for that information. Nevertheless, not all the companies apply external audit for their non-financial data, and not all of them write the reports in align with the mentioned standards. We as researchers analyzing secondary data are not involved into the corporate processes, and thus have very little idea of the context of the information provided in the

report and weather the negative impact is higher or lower compared to the positive one, which would influence the type of BST aligned. This fact indeed may lead us to possible errors in the results of our analysis.

However, it is needed to be pointed out, that the information published by organizations is a subject of interest from investors and other stakeholders, which brings to the company the responsibility to perform all the initiatives stated in the report to save its reputation. Thus, we can assume, that the information reported is valid even considering the flaws of the reported information stated above.

Moving to the advantages of secondary data, it allows analyzing a wider range of companies in a wider time period in a shorter time, and no other sources would contain as much information on the corporate strategy and its operations as companies' own reports.

Thus, using the abovementioned assumption on data validity, we choose the documentary analysis for our further research, since it is the most consistent way of getting information to achieve the goal of this research (Suanders et al., 2009).

### **Empirical study process**

To conduct the analysis with the chosen method, we will follow 5 steps.

We start from data collection, while establishing access to the non-financial reports published by sample companies during 2015-2019. Then we start the analysis.

First, the data available in each corporate report will be aligned with the abovementioned categories and sub-categories, and the changes made through the years will be highlighted. This process will be held through the MS Excel.

Second, as we previously developed the theoretical framework describing the specifics of each category for every BST type, we will draw conclusions on the BST type aligned to every particular company for each year, assigning it with the Business-as-usual, BST 1.0, BST 2.0 or BST 3.0 tag.

Third, additional category, which will help us to answer the research question, is the SDGs implementation. The extent of the SDGs implementation will be defined for each company as one of four ways implementation: No SDGs integration, Mention of the SDGs, Explanation of the practices in align with the SDGs, and The SDGs implication as the base for sustainability strategy.

Forth, we will group the companies according to the patterns they perform in reacting to the SDGs with their BST transformation through visualizing the companies' "behavior" through the Power BI.

Fifth, for each of the groups identified we will conclude on the role of the SDGs for the BST transformation and summarize the practices the companies implement in terms of

governance, processes and products, thus identifying the role of the SDGs in the BST transformation of the food retail companies.

Hence, following this empirical study process we will be able to answer the research question and achieve the goal of the study, which is “to identify the role of the UN SDGs in the BST transformation for the food retail industry” through conducting qualitative analysis of the non-financial reports covering 2015-2019 period.

## **2.2 Companies chosen for the analysis**

In this paragraph, we discuss the characteristics, according to which companies for empirical study were selected.

Firstly, since our paper specializes on the food retail industry, which is regarded as having a wide impact on SD that was discussed in the first chapter, the companies chosen for the analysis are the food retail companies.

Secondly, we would like to analyze the leaders of the industry, since they have the most impact on the SD. The leaders influence the most people, which are their customers, employees and communities in the regions of operations, and have the most impact on environment, since they have the widest range of operations with suppliers, as well as the overall scope of the food sold can possibly create the most waste, including food waste and plastic waste, etc. To sum up, the leaders have the strongest leverage towards the whole value chain creation.

However, there are different parameters, which can be taken as a benchmark for company ranking and choosing the leaders. Regarding the food retail industry specifics, e.g. the main retail business model of buying and selling goods, retail revenue is usually considered such a benchmark (Deloitte. 2020). Thus, for the purpose of our research we will select the industry leaders by retail revenue.

Moreover, in the case of the food retail companies, the market is highly concentrated, and top-50 retailers by revenue have the cumulative market share of 92% in North American market, 93% in European and 78% in the rest of the world's (Oliver Wyman, 2019). This statement is another argument in favor of analyzing the food retail leaders only, since only limited number of them possesses almost all the market.

In addition, choosing the industry leaders, we can be sure that the data for the analysis will be publicly available, since such companies publish reports describing their operations, including sustainability processes, for their stakeholders' use.

Finally, there are no other characteristics to be considered, since we would like to analyze the industry as it is, thus companies of different BST types can be presented in the sample, if they take place in the global real market.



In order to choose the food retail leaders by revenue, we use the Deloitte ranking, which is presented in the “Global Powers of Retail” (2020) report. The report includes all the representatives of the retail industry; however, it is possible to extract only food retail companies due to tags provided. The tags applied for the food retail companies are supermarkets, discount stores, and convenience stores.

To choose the exact number of companies for our qualitative study we need to follow the data saturation principle (Faulkner and Trotter, 2017), which means that the sample should be large enough to explain the phenomenon, but not too large, since in this case the new information gained will repeat the previous information and no additional conclusions will be possible to be drawn. Thus, the sample size will be defined during the analysis based on the information gained and if it is repeating the previous information. Moreover, considering all aspects of qualitative research, data depth is often more important than its quantity (Burmeister and Aitken, 2012), thus the sample size may be varied yet sufficient for answering the research questions and reaching the goal of the study.

To sum up, for the purposes of our study, we analyze global leaders of the food retail industry by retail revenue, and the sample will be defined during the process of our study following the saturation principle.

To conclude, the documentary analysis of the non-financial reports published during 2015-2019 time period, applied for the food retail leaders sample chosen following the saturation principle through the 5-steps study process will be conducted in the next chapter. The results of the analysis will help us answer the research question and achieve the final research goal, identifying the role the SDGs play in BST transformation. Finally, we will be able to draw conclusions on the theoretical and managerial implications of our research. The research limitations will also be stated as they were discussed partially in this chapter.

## **Chapter 3. EMPIRICAL STUDY**

In this chapter, we discuss the results of the empirical study conducted through the documentary analysis of the food retail companies, which will bring us to the answer of our research question. At the end of this chapter theoretical contribution and managerial implications are provided as the result of our analysis, as well as the limitations of the research.

### **3.1 Discussion of the research results**

This paragraph aims at providing the follow-up comments on the analysis and discussing results of the empirical qualitative study of the food retail companies on the role of SDGs in the BST transformation.

To clarify the terminology used in this paragraph, it is the same as it was used in the paper before, however the term “BST level” appears more frequently compared to “BST type”, following the way these terms were used by Dyllick and Muff (2015), the authors of the BST typology: speaking about the changes in business practices and switching from one BST type to another, “BST level” term is more applicable.

#### **Follow-up comments on the empirical study process**

Firstly, let us state the follow-up comments on the analysis process. During the documentary analysis the non-financial reports published during 2015-2019 (5 reporting periods) of the leaders of the food retail industry were studied through the categories defined in the theoretical framework: governance, processes and products. For each of the related sub-categories the exact information was extracted from the report to the MS Excel-table and the differences were highlighted for each consecutive year. According to the changes in business practices for each of the companies we identified the shifts discussed in literature review (Table 1), and concluded if the BST transformation took place and when. The example of that process exported from the MS Excel is presented in Appendix 1.

As we decided in the second chapter, the final number of the companies was defined following the saturation principle. The enough saturation was marked as achieved when new companies were providing the same information compared to what we have already had. Thus, the size of the sample was 15 and additional companies were not expected to bring additional findings or influence the results significantly. Moreover, it should be noted here that we were analyzing the top-companies as they were listed in the ranking, however, for some firms it was not possible to access the data, since it was available for the US only, or there were no reports in English. Due to

these reasons, the lowest rank of the company analyzed is #22, not #15 (7 companies were excluded from the analysis).

The result of grouping the data through categories and sub-categories was the BST type alignment to each of the companies for each of the period, so that the BST transformation can be tracked throughout the 5-year period.

Moreover, for each of the companies the extent of the SDGs implementation was identified, allowing us to conclude on the corporate attitude towards the SDGs implementation and the role they play in the BST transformation.

### Results of the analysis

Moving to the results of the analysis, although each of the companies' cases is unique and is discussed further, common patterns were identified among the companies via visualization in Power BI. By 'patterns' we assume the corporate attitude towards the SDGs publishing, resulted in BST transformation or its absence. Based on these patterns, the cases of the companies were grouped to four groups, presented shortly in Table 4.

Table 4. Four groups identified according to their patterns during 2015-2019

Group name	Group pattern summary	Number of companies
The companies that ignored the SDGs and did not increase their BST level	2015: BST 2.0 → 2019: BST 2.0. Pattern. Significant changes in governance, processes and products towards sustainability were not implemented: the BST level remained the same. The SDGs were not mentioned.	1
The companies that were truly sustainable before the SDGs were issued	2015: BST 3.0 → 2019: BST 3.0. The changes in processes and products took place, but even in 2015 governance, processes and products were corresponding the BST 3.0. The SDGs concept was integrated in different ways, starting from mentioning to clearly stating that the strategy was based on the SDGs.	4
The companies that did not increase BST with the SDGs integration	2015: BST 1.0, BST 2.0 → 2019: BST 2.0. Changes in products were implemented, while governance and processes remained the same. The BST level increased in one company from BST 1.0 to BST 2.0, which is explained by compliance reasons and not the SDGs role. Other companies did not increase BST level. The SDGs were mentioned.	3
The companies that increased the BST level with the SDGs integration	2015: BST 1.0, BST 2.0 → 2019: BST 3.0 Various changes were implemented in processes and products, but all the group members followed the change in governance by integrating the global challenges into the business model. The SDGs concept was integrated in different ways, starting from mentioning to clearly stating that the strategy was based on the SDGs.	7

Source: based on the author's empirical study results.

Note: the cases of Business-as-Usual were not identified during the analysis; we can assume, that it can be explained by high sustainability awareness among the food retail leaders.

Table 5 presents short summaries of the patterns, and further we discuss them and each cases in more detail. Moreover, the exact changes in the BST in connection with the SDGs integration of the grouped companies throughout the 2015-2019 period are presented in Appendix 2. Video recordings of those changes visualized via Power BI can be accessed in Google Drive through the following [link](#). The whole link can be copied from the Appendix 2.

Now let us discuss each of the groups defined during the empirical study, and each case in detail. Hence, we are providing the answer for the research question of changes in business practices and conclude on the role of the SDGs, which is the goal of our study.

### **Group 1. The companies that ignored the SDGs and did not increase their BST level**

*Pattern.* The pattern of this group is not mentioning the SDGs concept in the corporate non-financial reports, at the same time not performing any significant changes in governance, processes and products towards sustainability, thus not increasing their BST 2.0 level through the 5 year period. Note, that during the analysis there were no BST 1.0 companies that ignored the SDGs and did not increase their BST level, but if they took place, they would fall into this group. We can assume, that most industry leaders try at least to mention the SDGs, even though they do not implement significant changes (see the group 3).

*Companies.* Only one company is the member of this group, Casino Guichard-Perrachon S.A., which is #16 in the top-food retailers ranking, according to Deloitte (2020).

*Cases.* In the case of the Casino Guichard-Perrachon S.A., the company reported on some of the goals it set in social and environmental sphere, but the overall sustainability strategy was not developed through years, neither did global challenges become the base for the strategy. The SDGs were not implemented.

*Changes in practices of doing business.* No specific practices in terms of governance, processes and products were implemented over the years in this group. The group did not change the way of doing business.

*The SDGs role.* No sufficient changes in business practices were implemented throughout the years, hence there is no role of the SDGs.

### **Group 2. The companies that were truly sustainable before the SDGs were issued**

*Pattern.* The pattern of this group is choosing the global challenges as the starting point for their sustainability strategy before the SDGs were published. Even in 2015 all the business practices, e.g. governance, processes and products, were corresponding the BST 3.0 with companies clearly stating that they address the global challenges in their strategy, and the

challenges they chose were later reflected in the SDGs. Thus, these companies were already at BST 3.0 level, which was not changed, since it is the highest one, hence we present them in a separate group. The SDGs concept was integrated in different ways, starting from mentioning to clearly stating that the starting point for continuing strategy development.

*Companies.* The companies that form this group are Ahold Delhaize (#8), Aeon Co, Ltd. (#9), J Sainsbury plc (#18) and Metro AG (#22).

*Cases.* Speaking of each case separately, in the case of Ahold Delhaize, its sustainability strategy was formed in 2010 and even at that time it was developed to address the global sustainability challenges. The stakeholders were taking part in the strategy development. The company is not only stating the strategy development in this way, but also follows it, setting targets and improving its approach.

In Aeon Co, Ltd. case the same pattern is followed as the strategy was already based on global challenges, it was released in 2014.

Moving to J Sainsbury plc, its sustainability strategy named the Sustainable Development Plan was released back in 2010, but is updated every year. The quantitative targets are set and the results are reported on.

Metro AG, was stated to be the leader in the Dow Jones Sustainability index even in 2015, its strategy corresponds with global challenges, which is directly stated in the report. The company aims at creating additional value.

*Changes in practices of doing business.* The exact practices of the group, which we identified during our analysis as the ones that appeared during the period analyzed, are:

- Governance. No additional practices were implemented during the 2015-2019 period. We can assume that all the effective practices according to the theoretical framework had been implemented before.
- Processes. Mentorship programs for women leaders (J Sainsbury plc); Implementation of the e-platform developed by Whole Surplus start-up, participant of Metro accelerator, for reducing food waste and fighting hunger: the surplus food is donated to NPOs not only by Metro, but by other companies, which are platform members as well (Metro AG); Range of programs to support farmers and local communities in supply chain together with NPOs: together with Comic Relief employing women migrants for plantations in India, and together with Ethical trading initiative and Oxfam improving working conditions and protecting human rights of women in Morocco, etc. (J Sainsbury plc).
- Products. Investments for research on oncological disease caused by nutritional quality of products (J Sainsbury plc).

*The SDGs role.* Since changes in processes and products continued to appear even for truly sustainable companies with the SDGs implementation, we can conclude that the role of the SDGs for this group was strengthening the true BST practices, but not driving the BST transformation, as its highest level had been achieved already.

### **Group 3. The companies that did not increase the BST with the SDGs integration**

*Pattern.* In this group changes in products were implemented, while governance and processes remained the same. The BST level was increased in one company from BST 1.0 to BST 2.0, however it was explained by the obligation to disclose non-financial information and not the SDGs role. Other companies remained on the BST 2.0 level. The SDGs were mentioned or even presented as integrated into the corporate strategy, but there was no evidence for that in governance or processes changes during 2015-2019.

*Companies.* The companies that form this group are Carrefour (#7), Seven & I Holdings Co., Ltd. (#13) and Rewe Combine (#14).

*Cases.* Speaking of each case separately, in the case of Carrefour it moved closer to the BST level as its fellow group members. Carrefour is currently in the process of becoming truly sustainable company. The sustainability goals were set, but the way they were set is not mentioned, thus we cannot clearly say if they were based on the SDGs or global challenges or not. In 2017, the business strategy was reformulated, but the focus was not on sustainability. In 2018 initiatives are being strengthened, but the focus did not change to outside-out perspective still, however some of the practices, e.g. enhancing nutritional quality and consumer health education and awareness, are close to true BST.

In the case of Seven & I Holdings Co., Ltd., the company has been reporting that its sustainability strategy is based on the stakeholders opinions and sustainability challenges, however, its practices are not developed enough to align it to the BST 3.0 level, since the exact targets were not clearly stated and reported on, as well as the non-financial information disclosed was very limited. In the 2018 the company implemented targets to combat waste and reduce greenhouse gas emissions, but according to our theoretical framework it is the practice of BST 2.0 level companies, and BST 3.0 level has not been achieved yet.

Moving to Rewe Combine case, the company started to mention the SDGs in its report for 2015, stating that such a concept appeared on the global arena. Even though the company states that the SDGs are included in the strategy, specific goals are not reported and almost no progress happened over time in terms of governance, processes and products development. Thus, the company did not go further than just mentioning the SDGs.

*Changes in practices of doing business.* Moving to the exact changes in practices of the companies from this group, all of them are Carrefour practices, as it the only one making steps following the SDGs integration:

- Governance. No additional practices.
- Processes. No additional practices.
- Products. Healthy lifestyle educative events for customers and employees (Carrefour); Ban of antibiotics usage for private label farm products (Carrefour); Investments for research on biodiversity preservation in France (Carrefour).

*The SDGs role.* For this group the role of the SDGs is enhancing sustainable changes in products, but since there were no changes in governance and processes, these changes did not lead to BST transformation.

#### **Group 4. The companies that increased the BST level with the SDGs integration**

*Pattern.* The pattern of this group is integrating the SDGs and increasing the level of BST. While some of the companies jumped at two levels (from BST 1.0 to BST 3.0) during the period, others transformed their BST once (from BST 2.0 to the BST 3.0). All the companies from this grouped finished 2019 at the BST 3.0 level. This group is the most numerous with more than a half of the companies from the sample falling into it. This group' representatives integrated the SDGs in different ways, starting from mentioning them to clearly stating that the strategy was based to address the global challenges presented, which are reflected in the SDGs.

*Companies.* The companies that form this group are Wal-Mart Stores Inc. (#1), Schwarz Group (#3), The Kroger Co. (#4), Aldi Einkauf GmbH & Co. (#5), Tesco PLC (#6), Auchan Holding SA (#12) and Woolworths Limited (#17).

*Cases.* Speaking of each case separately, the case of Wal-Mart Stores Inc is the most outstanding, since the number of initiatives that were developed is surprising. The company implemented new sustainability strategy to change the previous one, in 2016. This time the company was orienting on the global challenges and the extent of the SDGs integration increased over times. Even though the company did not state that its strategy was formed based on the SDGs principles, its targets are fully aligned with the SDGs.

In case of Schwarz Group, the company started to integrate global challenges into its strategy in 2016 and explained each of the initiatives with the SDGs detailed alignment. Thus, the SDGs did not become the starting point for the strategy, but the company aligned all the sustainability goals with them.

For The Kroger Co. 2018 year became the changing point, when the company became truly sustainable. The sustainability goals were set in 2016, not aligned to the challenges. In 2017 the

Zero Hunger | Zero Waste initiative was launched, but there were no results to report yet. The initiative was widened as the SDGs-related initiative and the goals were reported on in 2018.

In Aldi Einkauf GmbH & Co. in 2017 new strategy was developed to address the global challenges. The number of practices and directions was increased, e.g. Human Rights direction was added, and all of them were aligned with the SDGs.

In the case of Tesco PLC, the company signed the UN Global Compact in 2016, but did not implement new sustainability strategy right away. In 2018 the company developed the Little Helps Plan, new sustainability strategy, with the SDGs being the base for it. The company claims that they worked for several years to create this plan before it was implemented, and as we can see during all these years the company has been implementing the SDGs step-by-step.

The case of Auchan Holding SA is interesting enough, since the company performed the BST transformation twice during 2015-2019 period. Firstly, in 2018 the company increased its BST level without the SDGs integration. As the company stated in their integrated report including non-financial information, the company was obliged to follow the EU Directive 2014/95/EU on non-financial disclosure, and they started to report on non-financial information, performing the shift from refined shareholder value to the triple-bottom line, or the BST 1.0 – BST 2.0 shift. Later in 2019 the company set new sustainability goals covering the global challenges, and thus moved to the BST 3.0 level. The SDGs were mentioned in 2019 report.

The Woolworths Limited developed new sustainability strategy in 2017 and used the SDGs as the base for it.

*Practices.* Moving to the exact practices of the companies from this group, following ones can be identified:

- Governance. Chief Sustainability Officer position opening (Wal-Mart Stores Inc.); Sustainability strategy integration into the corporate business-model (Wal-Mart Stores Inc., Schwarz Group, The Kroger Co., Aldi Einkauf GmbH & Co. oHG, Tesco PLC, Auchan Holding SA and Woolworths Limited – all the companies).
- Processes. Annual events together with Sam's Club and Feeding America for fighting hunger in US, by donating food to local food banks for every special item purchased (Wal-Mart Stores Inc); Opening of the Gigaton project for making the supply chain more sustainable in the list of ways (Wal-Mart Stores Inc).
- Products. Healthy lifestyle educative events for customers and employees (The Kroger Co., Schwarz Group), Sustainability Index for assessing and labeling suppliers (Wal-Mart Stores Inc); Equipping energy filling stations near shops for electric vehicles (Schwarz Group); Cooperation with NPOs to combat illegal



fishing (Wal-Mart Stores Inc); Cooperation with NPOs for soil quality improvement (Wal-Mart Stores Inc).

*The SDGs role.* For the companies from this group, the role of the SDGs is fostering the BST 2.0 – BST 3.0 transformation. These companies not only mentioned the SDGs, but integrated the global challenges into their strategy and objectives, and made changes in governance, processes and products, implementing a more sustainable approach.

Thus, we have analyzed all the companies chosen for the analysis in the groups according to their patterns in SDGs implementation and BST transformation, as well as each of the cases separately. During the analysis we identified specific practices the companies implemented in terms of governance, processes and products, thus answering to the research question. As we can see, the widest range of changes was implemented by the last group – The companies that increased the BST level with the SDGs integration – being the most numerous at the same time.

Moreover, the SDGs role was identified for each of the four groups as the conclusion on practices implemented, and only for the last group that role was connected to BST transformation. This role is in fostering the BST transformation, namely the BST 2.0 – BST 3.0 transformation.

Indeed, not all the companies, which integrated the SDGs, became the BST 3.0 level companies. Thus, the SDGs integration is not the only factor influencing the changes in governance, processes and products and thus leading to the BST transformation, but in this paper we do not aim to identify such factors, and it can be one of the points for further research. However, we can assume that some companies did not increase their sustainability level because it was not their goal – they are still the leaders of the industry, even not having reached ‘true sustainability’. Hence, it is important to point out, that, as it was previously concluded in literature review, all BST types can coexist, and even though most of the companies strive to increase their BST, not all of them are eager to do so. Another suggestion which can be drawn here is that the companies do not really know, how to reach their rivals in terms of sustainability. Further we are providing managerial recommendations to fit both suggestions.

In addition, while we were analyzing the exact practices of doing business the companies implement, we found out that most of these practices are connected with the SDG 8 (Decent work and economic growth), SDG 12 (Responsible consumption and production), SDG 2 (Zero hunger) and SDG 3 (Good health and well-being), as the companies state in their reports. While the SDG 8 and SDG 12 are the most applicable for profit seeking organizations, the SDG 2 and SDG 3 are more non-for profit oriented ones, and can be considered as the most widely used humane SDGs among the food retail companies, while previously this fact was not recognized in the industry-

specific recommendations, namely the UN Global Compact and KPMG (2015). It is the additional result that we got during the analysis.

To conclude, as identified through the empirical study, the role of the SDGs is mainly value-oriented and changing the mindset of the companies from just helping the society and environment to addressing the exact challenges the society and environment are facing, thus, the role of the SDGs is to foster the BST transformation to the BST 3.0 level. However, in order to perform the BST transformation and benefit in terms of societal value created from the SDGs implementation, changes in governance, processes and products are to be performed step-by-step. At the same time, it is not necessary to perform such changes, if there are some internal factors that prevent it. In the next paragraph we suggest the exact changes that food retail companies need to implement in order to improve their BST practices in align with the SDGs, even if they are not seeking the BST transformation in the nearest future.

### **3.2 Theoretical contribution and managerial implications**

In this paragraph we discuss the theoretical contribution and managerial implications that follow from our analysis and results discussion. All the results discussed in this paragraph are new for the academia and professional society.

Let us state the theoretical contribution first. First, the theoretical framework which was suggested by Dyllick and Muff (2015) has been applied for the food retail industry for the first time. Thus, specific food retail practices and their aligning to the framework are new in the academic literature. There were no deviations from the theoretical framework revealed during the analysis, however interesting findings were revealed in terms of governance, processes and products, and are described further.

Second, the role of the SDGs for the BST transformation for the food retail was proved to be sufficient as the value-setting role fostering the BST 2.0 – BST 3.0 transformation, which agrees with the Muff, Kapalka and Dyllick (2017) suggestion, which was not followed by empirical study before.

Third, even though the SDGs integration takes place at the BST 1.0 and BST 2.0 levels in some cases, it is not always leading to the BST transformation if not followed by changes in governance, processes, even though changes in products may take place to improve BST practices of a company. This point was not raised in the academic literature before.

Forth, we did not aim to get this implication first, but the specific sustainable practices analysis revealed that most of the initiatives are not only in align with the SDG 8 (Decent work and economic growth) and the SDG 12 (Responsible consumption and production), which are in contradiction with other SDGs, according to previous academic studies, but also with the SDG 2

(Zero hunger) and SDG 3 (Good health and well-being), which are synergy-creating. Thus, the food retail companies are balancing the trade-offs and synergies in the SDGs implementation.

Moving to managerial implications, based on the results of our analysis we developed recommendations for food retail companies according to their practices development level, or BST level, or type. The recommendations are developed for the corporate top-management, or the governing body, which sets strategic goals and objectives and identifies the directions for processes and products development. The recommendations cover the changes that are recommended to be performed and the ways to do that, based on our analysis. The reasons for these changes were discussed in the relevance of the research and can be shortly stated as that sustainability is a competitive advantage (Oliver Wyman, 2019), and, as we have revealed, the common trend for the food retailers. However, following the results of our study, if there is no internal opportunities and motivations to perform BST, the company may improve its operations at any BST level. We are providing such recommendations as well.

First, if the corporate sustainability practices of a food retail company are developed enough (sustainability objectives are set, monitored and reported on; negative footprint is being reduced in corporate operations, including logistics, and positive footprint is being applied through increasing nutritional quality, etc.) and the SDGs or global challenges in another way are implemented as the base for the sustainability strategy, thus, the company is already truly sustainable, there is still a room for improvement. For this company management may consider further changes in processes and products to increase the overall positive impact. These practices were performed by the second group of companies identified through our analysis, and are presented in the Table 5 among further recommendations. Wording of the practices was adjusted for better generalization, but the practices themselves are exact practices discussed in the previous paragraph for exact group.

Second, if the corporate sustainability practices of a food retail company are developed enough, but the objectives were set internally without any orientation towards global challenges, considering that this company wants to perform BST transformation, its sustainability strategy should be developed and the SDGs are to be implemented as the base for this sustainability strategy. This recommendation is justified by the fact that only last group performed the shift, as before the BST transformation to the BST 3.0 level the companies were already on the BST 2.0 level, while all the companies from other groups were not developed enough to benefit from the SDGs implementation, or simply lacked motivation for that.

Table 5. Recommendations on changes in governance, processes and products for the food retail companies according to their sustainability practices development level (BST level)

Situation	Governance	Processes	Products
<p><i>Company level:</i> BST 3.0  <i>Description:</i> practices are developed enough and global challenges are implemented as the base for the sustainability strategy  <i>Purpose:</i> to increase value</p>	<p>Synergies and trade-offs of the SDGs considering.</p>	<p>Programs supporting women leaders;  E-solutions for food waste reduction;  Farmers and local communities support programs.</p>	<p>Investments for the illnesses research caused by food products and its results implementation.</p>
<p><i>Company level:</i> BST 2.0  <i>Description:</i> practices are developed enough for BST 3.0, but global challenges are not implemented as the base for the sustainability strategy  <i>Purpose:</i> to perform BST 2.0 – BST 3.0 transformation</p>	<p>Chief Sustainability Officer position;  Sustainability strategy integration into the corporate business-model with the SDGs being the base for it;  Synergies and trade-offs of the SDGs considering.</p>	-	-
<p><i>Company level:</i> BST 1.0  <i>Description:</i> practices are not developed enough for BST 2.0  <i>Purpose:</i> to perform BST 2.0 – BST 3.0 transformation</p>	<p>Sustainable objectives implementation, e.g. food waste or greenhouse gas emissions reduction.</p>	<p>Repeating events for fighting hunger;  Advanced projects for the supply chain development in different perspectives;</p>	<p>Healthy lifestyle educative events for customers and employees;  Private certification;  Cooperation with NPOs to address global challenges in food production.</p>
<p><i>Company level:</i> BST 1.0, BST 2.0 or BST 3.0  <i>Description:</i> Any sustainability practices  <i>Purpose:</i> to improve BST practices, but not perform BST transformation</p>	-	-	<p>Healthy lifestyle educative events for customers and employees;  Ban of antibiotics usage for private label farm products;  Investments for research on local biodiversity preservation.</p>

Source: based on the author's empirical study results.

Note: particular recommendations for the Business-as-Usual – BST 1.0 transformation are not provided, since such cases were not identified during the analysis.

Third, strategic and operational changes, e.g. changes in governance, processes and products, are to take place in the food retail companies, if their practices are not developed enough, in addition to SDGs integration, considering, again, if the company has an internal will to do so. Those changes may be strategic sustainability objectives implementation, e.g. food waste or greenhouse gas emissions reduction, and widening the scope of the sustainable practices, e.g. same sustainability objectives for the supply chain and working conditions improvement in suppliers' and producers' firms. As for the changes in products, more nutritious options should be introduced and constantly developed based on the specific research results. Above all, positive as well as negative impact of the initiatives should be identified and the results are to be reported. When those changes will be introduced, and the company will be ready to go further, it may consider the recommendations provided earlier. All the changes mentioned were identified among the final group of the companies, which increased their BST level, on the way to their BST transformation.

Forth, companies that recognize that their practices are not developed to the BST 2.0 or BST 3.0 level, and they are not ready to perform the BST transformation due any reasons, but still would like to improve their sustainability practices, changes in products could be implemented, as in the third group of our research shows, not having performed the BST shift, but having improved its practices.

Finally, we are providing no recommendations based on the first group results, where no changes in sustainable practices were identified, since it contradicts with the fact that sustainability is now the competitive advantage for the food retail industry, and may become even a barrier for doing business. Thus, based on our analysis and relevance of the research we cannot recommend to follow the strategy of not improving the sustainable practices at all.

In addition, the SDG 8 (Decent work and economic growth) and SDG 12 (Responsible consumption and production), if chosen by the company, should be supported by synergy-creating industry-specific SDGs, for example, SDG 2 (Zero hunger) and SDG 3 (Good health and well-being) in the case of the food retail companies. Moreover, additional synergy-creating SDGs can be implemented, such as SDG 1 (No poverty) and SDG 6 (Reduced inequalities), as they form synergy-creating pairs with the SDG 3 (Pradhan et al., 2017).

Note, that all the above mentioned recommendations are industry-specific and are developed for the retailers' managers only. To some extent the recommendations can be generalized to related industries, such as food production industry. This extend will depend on the case of each particular company in the related industry, considering its operations, e.g. existence of private retail framework, specialization on farming and meat production, etc.

To sum up, according to our managerial and theoretical implications, the study adds value to both management theory and practice.

### **3.3 Limitations and suggestions for further research**

In this paragraph, the limitations of the current research are stated as well as suggestions for further research.

First limitation is about generalization. Generalization is limited for other industries, since only the food retail industry was analyzed and recommendations provided are industry-specific and only to a limited extent can be provided to the relevant industries, such as food production. For the further research theoretical framework is to be tested on other industries in order to reveal industry-specific practices.

Then, country-related differences of the SDGs role were not analyzed, which could lead to interesting conclusions on preferences of the companies to perform BST according to more urgent external factors. Thus, cross-country research is to be conducted to reveal country specifics can be conducted during further research.

Moreover, the research is based on secondary data analysis, however it may show facts in a distorted way and affect the final results, as we stated before. The research based on primary data, is to be conducted with the same companies to prove the data validity assumption we used.

Finally, during the research we revealed that other factors fostering the BST transformation apart from the SDGs take place, but their identification was not a part of our research. Thus, other factors fostering the BST transformation are to be revealed and analyzed during the further research.

Thus, the limitations of our study do exist, and they are providing the path for the further research.

To sum up, in this chapter the results of the analysis were discussed as well as theoretical and managerial implications. Through the documentary analysis of non-financial reports of 15 food retail leaders throughout the 5-year period, four groups were identified according to the patterns companies performed in terms of the SDGs implementation and BST transformation. For each group exact changes in governance, processes and products were identified as well as the role of the SDGs. We revealed, that the role of the SDGs was mainly value creating and fostering the BST 2.0 – BST 3.0 transformation, however, the SDGs implementation is not leading to the BST transformation, if it is not supported by changes in governance, processes and products for the food retail companies whose practices are not developed enough yet. Thus, the research question, being “How did the way of doing business in the food retail industry change following the escalation of global challenges addressed by SDGs concept?” was answered, and the research goal, being “to identify the role of the UN SDGs in the BST transformation for food retail companies” was achieved. The results of our study formed theoretical implications, while the fact that the

theoretical framework was applied for the food retail industry for the first time is the first theoretical implication, among others. Managerial recommendations were formed based on our findings, which are mainly for the food retail companies' top-management or other governing body in charge of strategy development and directions for processes and products development identification. These recommendations are developed for the companies from different BST levels, or in other words, different sustainability practices development levels, which are following different purposes. The recommendations will help companies to increase their BST level, if they are eager to, or improve BST practices, if they are not ready for huge changes in terms of their sustainability.

## CONCLUSION

The food retail industry is one of the most important contributors to sustainable development, as it is an intermediary between food producers and consumers, and large food retailers have a strong impact on both. For the food retailers sustainability is one of the main competitive advantages (Oliver Wyman, 2019), and with the changing stakeholder expectations, which are following sustainable way, may become a barrier for doing business.

Extend literature research proved that SDGs and BST concepts are significant to the business but depending on the specific industry, though the role of the SDGs in the transformation of BST has not been explored through industry-specific lenses, especially for the food retail industry. This is the research gap that we were focusing on in our study, and we aimed to identify the role of the UN SDGs in the BST transformation for food retail companies.

In the first chapter detailed overview of the existing literature is provided on such topics as the SDGs, their development and role for the states, academic society, universities and business as well as their interaction and contradicting culture. The BST concept was discussed in detail as well, and features of each of the four BST types, namely Business-as-Usual, BST 1.0, BST 2.0 and BST 3.0, were summarized, including extend of the SDGs integration. Moreover, theoretical framework was developed based on Dyllick and Muff's (2015) research for further application to the food retail industry. As the result of the literature review, the research questions were identified for the future analysis: "How did the way of doing business in the food retail industry change following the escalation of global challenges addressed by SDGs concept?"

In the second chapter method chosen for the analysis was justified, being the qualitative analysis of secondary data – documentary study of non-financial reports of the food retail leaders through categories, namely governance, processes and products, and relevant sub-categories identified in the theoretical framework. The non-financial reports were chosen for each company to cover 2015-2019 period, which is the period from the SDGs publishing till the latest report available. The companies chosen for the analysis were the global food retail leaders by retail revenue, and the number of companies was later defined during the analysis according to the saturation principle. Our analysis was defined to follow the 5-steps process and led us to the answer for the research question and aim of the study achievement.

In the final chapter, the results of the empirical study were discussed, theoretical contribution and managerial implications were provided, and the limitations of the research were stated. Through the analysis of the changes in BST types, or levels, following the SDGs implementation, four groups of "patterns" were identified, such as the companies that ignored the SDGs and did not increase their BST level, companies that were truly sustainable before the SDGs



were issued, companies that did not increase BST with the SDGs integration, and companies that increased the BST level with the SDGs integration. The final group was the most numerous, consisting of 7 out of 15 companies. For each group changes in governance, processes and products were identified, and as the result the role of the SDGs was identified for each of the groups. Thus, we concluded on theoretical implications and were able to draw recommendations for the food retail companies' management based on our findings.

Conclusively, this master thesis reveals that the role of the SDGs for the food retail companies is primarily to facilitate the BST 2.0 – BST 3.0 transformation, and the SDGs implementation is not contributing to the BST transformation unless it is followed by improvements in governance, processes and products of food retailers. Lastly, the step-by-step recommendations, which we developed for the companies with different development level of business sustainability practices, will help the companies to achieve 'true sustainability' level or simply increase their BST practices, and get the competitive advantage, increasing the company's attractiveness for all the stakeholder groups.

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# APPENDICES

## Appendix A. Example of documentary analysis: Walmart

Year, BST level, SDGs	Governance					
	1. Policies and codes	2. Sustainability objectives implementation	3. Sustainability objectives reporting	4. Choice of the corporate goals	5. Management framework	6. Reporting type
2019 BST 3.0 SDGs	"Walmart Privacy Policy"; "Deforestation policy"; "Environment sustainability statement"; "Audit and Assessment Policy and Guidance" (for supply chain); "Food Safety Policy"; "Health and Wellness Policy"; "Seafood Policy"; "Policy Roadmap to Renew U.S. Manufacturing" "Sustainable Chemistry Policy"; "Statement of Ethics"	Goals are set with quantitative metrics to be achieved by 2025, the areas are the following: "Climate change", "Sustainable supply chain", "Waste", "Retail opportunity", "Responsible supply chains", "Providing affordable, safer and healthier products", "Communities"	Reporting on all the goals set, results collected in the "ESG data section"	"We set ESG priorities based on relevance to our company purpose, key categories and markets; Walmart's ability to create change; and relative importance to our customers and other stakeholders"	"The Nominating and Governance Committee of the Walmart Board of Directors, which reviews our ESG initiatives" and "advises management on Walmart's ESG initiatives"; "Walmart's Chief Sustainability Officer provides regular updates to the Nominating and Governance Committee on ESG issues and initiatives"	ESG Report (Sustainability report)
2018 BST 3.0 SDGs	"Deforestation policy"; "Seafood Policy"; "Policy Roadmap to Renew U.S. Manufacturing"; "Sustainable Chemistry Policy"; "Statement of Ethics"	Goals are set with quantitative metrics to be achieved by 2025, the areas are the following: "Climate change", "Sustainable supply chain", "Waste", "Retail opportunity", "Responsible supply chains", "Providing affordable, safer and healthier products", "Communities" (names from report 2019: areas are the same, names used are different)	Reporting on all the goals set, results collected in the "ESG commitments and progress section"	"We set ESG priorities based on relevance for our company purpose, key categories and markets; the potential impact on Walmart's business and relative importance to our customers and other stakeholders; and Walmart's ability to make a difference through strengths such as our associates around the world, supplier relationships, jobs and purchase orders, or capabilities such as in logistics and technology."	"the Nominating and Governance Committee provides oversight and guidance to Walmart Corporate Giving, as well as Walmart's environmental, social and governance (ESG) strategies, commitments and progress"; "Chief Sustainability Officer"	ESG Report (Sustainability report)
2017 BST 3.0 SDGs	"Seafood Policy" "Sustainable Chemistry Policy" "Statement of Ethics"	"At the Net Impact conference on Nov. 4, 2016, Walmart President and CEO Doug McMillon outlined new targets that build upon the three original aspirational sustainability goals to guide the company on critical shared value priorities for the next decade."	Reporting on all the goals set, results collected in the "Commitments" section	"To sharpen our social and environmental priorities, programs and reporting, we heavily engage our stakeholders— customers, associates, suppliers, advisory councils, community leaders, grantees, other NGOs, government leaders and investors— in dialogues, working sessions and surveys about their perspectives on Walmart's role in society."	<b>the Compensation, Nominating and Governance Committee is separated into two structures</b> - "the Compensation and Management Development Committee (CMDC) evaluates the incentive- and equity-based compensation of the company's directors and executive officers" and "the Nominating and Governance Committee This committee is also responsible for reviewing and advising management regarding the company's charitable giving strategy and the company's social, community and sustainability initiatives"; "Chief Sustainability Officer"	Global responsibility report (Sustainability report)
2016 BST 3.0 SDGs	"Seafood Policy"; "Sustainable Chemistry Policy"; "Statement of Ethics"	<b>Strategic pillars and priorities are set, and wide objectives are implemented</b>	<b>Reporting on all the goals set, results collected in various sections</b>	"Today we view global responsibility in these three big areas – Opportunity, Sustainability and Community. All three cut to the heart of customer advocacy and leveraging our supply chain." "At Walmart, we continually engage stakeholders to understand their perspectives, improve the effectiveness and relevance of our initiatives, increase transparency and trust and collaborate on <b>addressing business and societal challenges</b> "	<b>"Chief Sustainability Officer"</b> "the Compensation, Nominating and Governance Committee (CNGC) oversees an annual evaluation process that is used as a tool for promoting the effectiveness of the Board and Board committees. The CNGC is responsible for reviewing and advising management regarding the company's charitable giving strategy and the company's social, community and sustainability initiatives";	Global responsibility report (Sustainability report)
2015 BST 2.0 Before SDGs	"Seafood Policy"; "Sustainable Chemistry Policy"; "Statement of Ethics"	Sustainability objectives implementen into the strategy. "In 2005, Lee Scott (who was CEO of Walmart at the time) set three aspirational goals for Walmart that established the tone for our corporate global responsibility. These goals were to supply our company with 100 percent renewable energy, to create zero waste and to sell products that sustain people and the environment."	The priorities are set, but not concrete goals. Progress is reported in the section "Progress on aspirations and public commitments"	No exact reasoning is set. The objectives were defined in 2006. "In everything we do, we set bold aspirations for social and environmental outcomes. We seek to change the way the retail industry operates so that the improvements go beyond Walmart and are lasting."	"the Compensation, Nominating and Governance Committee (CNGC) oversees an annual evaluation process that is used as a tool for promoting the effectiveness of the Board and Board committees."	Global responsibility report (Sustainability report)

Note: Differences from the previous year are highlighted in bold. Gray cells show the main BST 2.0 – BST 3.0 shift in corporate perspective: from inside-out to outside-it.

Appendix A. Example of documentary analysis: Walmart continued

Year, BST level, SDGs	Processes						
	1. Energy efficiency	2. Water efficiency	3. Greenhouse gas reduction	4. Sustainable sourcing	5. Sustainable manufacturing	6. Sustainable transport	7. Sustainable supply chain
2019 BST 3.0 SDGs	"increasing the energy efficiency of our buildings, aiming to power 50% of our operations with renewable energy by 2025"	"Water use efficiency"	"We have set a science-based target to reduce GHG emissions in our own operations (Scopes 1 and 2) by 18% by 2025 (compared with 2015 levels) through multiple initiatives"; "Based on our pipeline of solar and wind projects, we expect to source 35% of our electricity from renewables by 2020."	"Our Responsible Sourcing team, working with and through our suppliers, mitigates risks related to worker safety and well-being. We set expectations for our suppliers through our Standards for Suppliers and use audits to help assess whether our standards are being upheld."	<b>"We have also: Published the Policy Roadmap to Renew U.S. Manufacturing, outlining what government, manufacturers and retailers can do to create manufacturing areas of opportunity."</b>	"maximizing the sustainability of our fleet"	"Launched in 2017, Project Gigaton engages suppliers in setting targets and pursuing initiatives to avoid emissions in any of six areas where there are opportunities to do so: energy use, sustainable agriculture, waste, deforestation, packaging and product use."
2018 BST 3.0 SDGs	"increased energy efficiency in our buildings and trucks, transitioning to renewable energy sources"	"Walmart works to reduce unnecessary water usage in our operations by using efficient fixtures and technologies in the design of our facilities, redesigning processes to require less water, monitoring usage to identify and repair leaks and in some areas even treating and recycling water."	"We were the first retailer to set science-based targets for greenhouse gas emissions reduction, <b>including launching Project GigatonTM, which is an initiative to work with suppliers to remove 1 billion metric tons, a gigaton, of emissions from our supply chain by 2030.</b> "	"Walmart is committed to working with suppliers and stakeholders to promote responsibility in the global supply chain. Through our Responsible Sourcing program, we set expectations for suppliers and their facilities, assess supply chain risk, monitor supply chain conditions through audits and investigations and provide training for our associates and suppliers."	"Since 2011, Walmart and the Walmart Foundation have been working to empower women and workers in the textile value chain. Through the Women in Factories training programs implemented by grantees funded by the Walmart Foundation, we learned that empowerment training can have positive impacts on the awareness of gender issues, productivity, retention, and overall worker well being."	"increased energy efficiency in our buildings and trucks, transitioning to renewable energy sources"	<b>"Project Gigaton";</b> "Walmart has a large, geographically diverse supply chain that includes more than 100,000 suppliers around the world. Our sourcing efforts can help support local and small farmers, foster growth of women-owned business and encourage the growth of small business. While some value chains are generally subject to effective regulation and oversight, others can present higher potential risks to worker dignity";
2017 BST 3.0 SDGs	"The majority of our global electricity use comes from our buildings around the world—11,600 in total—including our stores, clubs, distribution centers and, increasingly, our data centers. In buildings, our energy use can be broken into four main areas: lighting; heating, ventilation and air conditioning (HVAC); refrigeration; and other categories such as plug loads. In each of these areas we are focusing on energy efficiency in the way we design, procure, operate, monitor and maintain our systems. "	"In watersheds that face scarcity or other stresses, we work to reduce unnecessary water usage in our operations by using efficient fixtures and technologies in the design of our facilities, redesigning processes to require less water, monitoring usage to identify and repair leaks and in some areas even treating and recycling water."	<b>"That's why we became the first retailer with a goal approved by the Science Based Targets initiative, which helps companies to be in line with the level of reduction needed to help prevent the worst impacts of climate change."</b>	<b>"We are proud to announce that we deployed the system to many of our U.S. food suppliers in FY2017, and it is currently being adopted by Walmart's Responsible Sourcing department to track their compliance requirements."</b>	"Walmart aims to use our purchase orders, supplier relationships and philanthropy to promote local manufacturing innovation and growth."	"Maximizing the efficiency and safety of our trucking fleet"	"Walmart has been encouraging the use of CDP (a not-for-profit formerly known as the Carbon Disclosure Project) in our supply chain to report on emissions footprints and inspire reductions"
2016 BST 3.0 SDGs	"We're committed to ongoing improvements in the energy efficiency of our operations."	"Walmart is working with suppliers to improve water efficiency and fertilizer usage in the supply chain"	"With 153 other companies, we have signed the White House's American Business Act on Climate pledge. As part of this initiative, each company expressed support for a strong outcome in Paris at the U.N. Climate Change Conference, and many announced or reiterated pledges to reduce emissions, increase low-carbon investments, and deploy more clean energy projects. "	<b>"Launched our Responsible Sourcing Academy in 2015, which provides suppliers and facility management with tools and training opportunities designed to influence continuous and sustainable improvement."</b>	<b>"We aim to promote inclusive development of suppliers and other businesses, through initiatives such as Local Manufacturing and Small Business"</b>	"The environmental impact of local sourcing By not needing to transport products through traditional shipping channels, the environmental impact of Walmart's local manufacturing initiative is equivalent to (measures)"	"Received Index responses covering 77 percent of Walmart food business, with suppliers reporting GHG emissions for 46 percent of their supply."
2015 BST 2.0 Before SDGs	"And we are working directly with manufacturers in China to lower energy consumption by 30 percent over the next several years."; "In 2014, we retrofitted and replaced refrigeration equipment with doors at 35 stores and installed LED lighting at 15 units. These two projects delivered an 18 percent improvement in energy efficiency."	"As a retailer, our direct water intensity is relatively low when compared to mining, manufacturing or agribusiness. Still, we estimate that more than 20 percent of our operations around the world are, or will be, located in regions facing high levels of water stress. We are actively working to raise water-use efficiency in our operations around the world"	"We're actively engaged with Carbon Disclosure Project (CDP) through its supply chain program. This relationship offers our suppliers a global platform for reporting climate strategies and data, which drives continued improvement toward the Sustainability Index and transparency into our supply chain."	"Walmart values the men and women around the world who work to produce the products our customers love. We expect suppliers and factory management to provide them with a safe and healthy work environment and advancement opportunities."	"Factories that represent 70 percent of our business sourced in China will participate in our Factory Energy Efficiency Program by 2017."	"In terms of transportation as a whole, we delivered nearly 161 million more cases, while adding just 24 million new miles in 2014, as compared with 2013. Every mile not driven is fuel not burned. That efficiency saved the company nearly \$11 million, which has a direct impact on our ability to offer customers everyday low prices on the products and services we sell."	"The Global Social Compliance Program (GSCP) is a business-driven program created to promote the continuous improvement of working and environment conditions in global supply chains. "

Appendix A. Example of documentary analysis: Walmart finished

Year, BST level, SDGs	Products				
	1. Reducing packaging	2. Enhancing nutritional quality	3. Providing clear and reliable data	4. Promoting of sustainable consumption	5. Consumer health education and awareness
2019 BST 3.0 SDGs	"In 2018, we diverted 78% of our unsold products, packaging and other materials from landfill and incineration globally";  "We have asked our suppliers to reduce unnecessary plastic packaging, increase packaging recyclability and increase recycled content, and to help us educate customers on reducing, reusing and recycling plastic."	"• Making healthier options more affordable • Making healthier choices easier • Providing nutrition education"; "Food reformulation (e.g., sugar, additives)"	"• Blockchain pilot • Sustainability Index"; " Third-party certifications on packaging, where appropriate "	"Making healthier options more affordable"	"Providing nutrition education"; "As of November 2018, we had also put funding in place to reach 4 million people with nutrition education"
2018 BST 3.0 SDGs	"Making packaging more sustainable by sourcing sustainable materials, optimizing design to reduce the amount of material used and supporting recycling is a clear way to lower emissions. We are asking companies to commit to a goal specific to any or all of these areas: 1) safely optimize design, 2) source sustainably and/or 3) support recycling."	"Customers face numerous challenges in their attempts to maintain a better diet, including access to nutritious foods, understanding proliferating food claims, real and perceived high costs, and on-the-go lifestyles, to name just a few. <b>We're working to develop tools to help our customers identify better options.</b> "	"Increasing transparency through blockchain"; "Sustainability Index"; ""As customers come to rely on digital channels, we're not only increasing access to nutritious options through eCommerce, we are also providing more information about them. For example, Walmart.com now has a page dedicated to Great For You, which defines the program and provides Great For You-inspired recipes"	Our aim is to make it easy for shoppers to make healthier choices by offering nutritious options at accessible prices, as well as providing information and advice.	"In 2014, Walmart and the Walmart Foundation set a goal of providing nutrition education to 4 million people by 2020. These efforts are focused on encouraging people to prepare meals at home and to increase their consumption of fruits and vegetables. Since making that commitment, Walmart and the Walmart Foundation have funded nutrition education for more than 3.5 million people."
2017 BST 3.0 SDGs	"By the end of FY2017, we diverted from landfills 82 percent of unsold products and packaging in the U.S. and 77 percent* globally in our facilities"; "In all our global markets we are looking for ways to <b>reduce the amount of secondary packaging we use</b> "	"reformulating food to reduce added sugars, sodium and trans fat"; "Since 2011, we have reduced sodium by 18 percent, added sugar by 10 percent and removed all industrial-produced trans fats in our private brands— well ahead of regulatory guidance. We will continue this work, aspiring to support a diet that reduces sodium"	"clearly labeling nutritious choices"	"To help our customers easily identify more nutritious choices, we created a Great For You icon displayed on the item and described in detail on the Walmart website."; "Last year, Walmart U.S. completed an ambitious program launched in collaboration with former First Lady Michelle Obama to make the healthier choice the easy choice by reformulating food to reduce added sugars, sodium and trans fat, more clearly labeling nutritious choices; lowering the price of fresh food; building stores serving food deserts; and educating people on nutrition. We continue such efforts in the U.S. and additional markets"	"Providing nutrition education"
2016 BST 3.0 SDGs	"While we've made significant progress with our suppliers in optimizing packaging, we still have work to do. Now that we have <b>packaging key performance indicators (KPIs)</b> in our Sustainability Index, we can better measure and track progress toward more sustainable packaging design and end of life initiatives"	"Enhancing nutrition" "Since 2008, we've been working to remove – from both national and our private brands – ingredients that aren't necessary or that health experts indicate can cause significant health issues – things like sodium, sugar and trans fats."	"More than 30 percent of our private brands continue to carry our Great For You icon, which makes it easier for customers to identify more nutritious options."	" <b>In October 2015, Walmart launched "America's Biggest Health Fair" in our U.S. stores as a way to improve customer access to health and wellness opportunities. Customers received, among other things, free blood pressure, blood glucose and vision screenings. In all, we conducted nearly 300,000 screenings, 50,000 immunizations and distributed almost 2 million product samples over a four-hour period.</b> "	"Supported nutrition education for nearly 1.9 million people."
2015 BST 2.0 Before SDGs	"We published packaging recyclability guidelines to prioritize packaging optimization opportunities"; "Incorporate the learnings and successes of the Packaging Scorecard into the Sustainability Index"	"Make it easier for people to buy and prepare nutritious food. For example, in the U.S. we're working to eliminate trans fat and reduce sodium (by more than 16 percent so far) and sugar (by 10 percent) in the products we sell; introducing low-priced, healthier product lines, affordable organics lines"	"providing information about nutrition online and through special programs with nonprofits and non-governmental organizations (NGOs)."; "Great for you labeling"	"We're focused on encouraging meals prepared at home and fruit and vegetable consumption, both of which lead to behavior change. This focus includes classes on cooking, building shopping skills or helping families make the most of healthy food resources"	"Walmart Foundation contributed \$10 million to nutrition education efforts"

Source: based on the author's empirical study process.



Appendix B. Changes in the BST in connection with the SDGs integration of the grouped companies during 2015-2019

	2015	2016	2017	2018	2019
<b>Group 1. The companies that ignored the SDGs and did not increase their BST level</b>					
Casino Guichard-Perrachon S.A.	BST 2.0 No SDGs integration	BST 2.0 No SDGs integration	BST 2.0 No SDGs integration	BST 2.0 No SDGs integration	BST 2.0 No SDGs integration
<b>Group 2. The companies that were truly sustainable (BST 3.0) before the SDGs were issued</b>					
Ahold Delhaize	BST 3.0 No SDGs integration	BST 3.0 Strategy based on the SDGs	BST 3.0 Strategy based on the SDGs	BST 3.0 Strategy based on the SDGs	BST 3.0 Strategy based on the SDGs
Aeon Co, Ltd.	BST 3.0 No SDGs integration	BST 3.0 Mention of the SDGs	BST 3.0 Mention of the SDGs	BST 3.0 Mention of the SDGs	BST 3.0 Mention of the SDGs
J Sainsbury plc	BST 3.0 No SDGs integration	BST 3.0 Mention of the SDGs	BST 3.0 Mention of the SDGs	BST 3.0 Practices are in align with the SDGs	BST 3.0 Practices are in align with the SDGs
Metro AG	BST 3.0 No SDGs integration	BST 3.0 Strategy based on the SDGs	BST 3.0 Strategy based on the SDGs	BST 3.0 Strategy based on the SDGs	BST 3.0 Strategy based on the SDGs
<b>Group 3. The companies that did not increase the BST with the SDGs integration</b>					
Carrefour	BST 2.0 No SDGs integration	BST 2.0 No SDGs integration	BST 2.0 No SDGs integration	BST 2.0 Mention of the SDGs	BST 2.0 Mention of the SDGs
Seven & I Holdings Co., Ltd.	BST 1.0 No SDGs integration	BST 1.0 Mention of the SDGs	BST 1.0 Mention of the SDGs	BST 2.0 Practices are in align with the SDGs	BST 2.0 Practices are in align with the SDGs
Rewe Combine	BST 2.0 No SDGs integration	BST 2.0 Mention of the SDGs	BST 2.0 Mention of the SDGs	BST 2.0 Mention of the SDGs	BST 2.0 Mention of the SDGs

Appendix B. Changes in the BST in connection with the SDGs integration of the grouped companies during 2015-2019 continued

	2015	2016	2017	2018	2019
<b>Group 4. The companies that increased the BST level with the SDGs integration</b>					
Wal-Mart Stores Inc.	BST 2.0 No SDGs integration	BST 3.0 Mention of the SDGs	BST 3.0 Mention of the SDGs	BST 3.0 Mention of the SDGs	BST 3.0 Practices are in align with the SDGs
Schwarz Group	BST 2.0 No SDGs integration	BST 3.0 Practices are in align with the SDGs	BST 3.0 Practices are in align with the SDGs	BST 3.0 Practices are in align with the SDGs	BST 3.0 Strategy based on the SDGs
The Kroger Co.	BST 2.0 No SDGs integration	BST 2.0 No SDGs integration	BST 2.0 No SDGs integration	BST 3.0 Practices are in align with the SDGs	BST 3.0 Practices are in align with the SDGs
Aldi Einkauf GmbH & Co.	BST 2.0 No SDGs integration	BST 2.0 No SDGs integration	BST 3.0 Practices are in align with the SDGs	BST 3.0 Practices are in align with the SDGs	BST 3.0 Practices are in align with the SDGs
Tesco PLC	BST 2.0 No SDGs integration	BST 2.0 Mention of the SDGs	BST 2.0 Mention of the SDGs	BST 3.0 Strategy based on the SDGs	BST 3.0 Strategy based on the SDGs
Auchan Holding SA	BST 1.0 No SDGs integration	BST 1.0 No SDGs integration	BST 1.0 No SDGs integration	BST 2.0 No SDGs integration	BST 3.0 Mention of the SDGs
Woolworths Limited	BST 2.0 No SDGs integration	BST 2.0 No SDGs integration	BST 3.0 Strategy based on the SDGs	BST 3.0 Strategy based on the SDGs	BST 3.0 Strategy based on the SDGs

Source: based on the author's empirical study results.

Note: Video recordings of the dynamic visualization of the table, built via Power BI, can be accessed in Google Drive through the following link: [https://drive.google.com/open?id=1eAVzGpmyDV0MhEOd\\_oXfrBpWuNVgnl8G](https://drive.google.com/open?id=1eAVzGpmyDV0MhEOd_oXfrBpWuNVgnl8G).