

Behaviour change interventions for more sustainable food consumption

A review of three REWE International cases studies



Imprint

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Introduction

The overall goal of the VALUMICS project is to provide European decision makers with a comprehensive suite of approaches and tools to evaluate the impact of policies and strategies for enhancing the resilience, integrity and sustainability of food value chains in Europe.

Contributing to the project goal, this report is the third in a series of VALUMICS outputs dedicated to food consumption analysis, aimed at understanding opportunities and challenges to drive food consumption behaviour change interventions in the food retail sector. This is done by analysing and learning from three pilot cases conducted by the VALUMICS project partner REWE International AG.

In this context, Chapter 2 reviews the reasons for intention-behaviour gaps in relation to sustainable food consumption among consumers as well as the strategies that retailers may adopt to support change. Chapter 3 presents the three case studies conducted by REWE International as part of their sustainability portfolio and discusses their contribution to more sustainable food consumption and to more sustainable food value chains overall. Each case illustrates a particular strategy for retailer-led behavioural change, namely choice editing (social standards), choice expansion (returnable milk bottle) and choice environment (greening of stores). Chapter 4 presents conclusions from the cases, drawing out seven lessons for food retailer-led strategies.

In addition to this report, VALUMICS project hosted a webinar on 19 November 2020 providing stakeholders with insights and information under the theme of this report. The video and slide presentations are accessible from the website of VALUMICS: EAT@Home – Putting solutions in the shopping basket. Food retailer approaches and interventions to support more sustainable food consumption.

The overall goal of the VALUMICS project is to provide European decision makers with a comprehensive suite of approaches and tools to evaluate the impact of policies and strategies for enhancing the resilience, integrity and sustainability of food value chains in Europe. Contributing to the project goal this report is the third in a series of VALUMICS outputs especially dedicated to food retailer interventions to support the shift towards sustainable food consumption behaviours. Reports preceding this one looked at the European citizens food purchasing and consumption determinants and successful behavioural interventions that can guide citizens towards more sustainable consumption patterns. This report will be followed by the multi-stakeholder recommendations report that looks at leverage points on a system level for driving such change.





Chapter 2

Approaches to behaviour change

Generally, **consumers value more environmentally friendly food supply chains** and many report intentions to switch to more sustainable practices and diets [1,2]. However, **intentions often lag clear actions**. For instance, far more consumers say they intend to reduce their consumption of single use plastics than have done so [3]. Similarly, the number of consumers who pledge to reduce meat consumption on environmental and health grounds is much greater than the realised change [4]. This highlights **that more sustainable food consumption practices are often subject to intention-behaviour gaps** [5,6]. This section reviews the reasons for intention-behaviour gaps in relation to sustainable food consumption and the strategies that retailers may adopt to support change.

2.1 The intention-behaviour gap for sustainable food consumption

The intention-behaviour gap refers to discrepancies “between what consumers say they are going to do and what they actually do at the point of purchase” [6 p.141]. Generally, sales of more environmentally friendly and ethical goods lag stated intentions [7,8]. Synthesizing the extant literature, five main reasons for intention-behaviour gaps are apparent:



A) Obstacles encountered

The social psychologist Kurt Lewin [9] sought to understand food habits and the factors which change them. He argued that even if a particular food is attractive there are typically opposing forces, for instance the level of expense, disagreeable length of preparation, lack of fit with the occasion [10]. **A food will not be bought if the total force toward buying it is less than the power of opposing forces.** Motivations to act in a particular way may fail to stimulate commensurate actions if they are “not brought down from the level of wishes and sentiments to the level of a decision”

[9] and if the obstacles encountered exceed attractiveness. Consequently, requests to change diets and general promotional campaigns to promote sustainable food systems may be ineffective; **rather than seeking to close intention-behaviour gaps one should consider primarily how they can reduce obstacles (opposing forces)**. For instance, in promoting the consumption of heart, kidney and brain meats in the USA, when faced with shortages of preferred cuts during World War 2, Lewin [9] found that identifying the reasons for food buyers' aversion and then focusing on practical ways to overcome such barriers (e.g., where such meats could be bought, prepared to be incorporated into existing dishes without loss of taste, and how best to be presented to the family) to be the most effective. Lewin's work informs recent frameworks for instigating behavioural change [11].

Drawing on Lewin's work, obstacles to sustainable food choices can be classified in terms of opportunities and abilities. **Opportunities** relate to the physical availability of more environmentally friendly offerings as well as ability to purchase. A recent survey of EU citizens indicates that 15% totally agree and 28% tend to agree with the statement that organic foods "are difficult to find in the supermarkets, shops or markets in the area where you live" [12]. More sustainable food solutions are often more expensive than comparable conventional products and this can be a substantial obstacle, especially for low income consumers [13]. **Abilities** include knowledge and culinary skills. For instance, while consumers may wish to cut their carbon footprint, knowledge of how to do so is often limited [14]. Consumers often misinterpret food logos and find it difficult to understand the differences between food quality labels [15]. Psychological barriers may also exist in terms of more sustainable foods being regarded as "not for them". For instance, Popa et al. [16] report that some Romanian non-consumers of organic foods regard them as snobbish and bought only by a particular social class.



B) Prioritization of other goals

While consumers may possess environmental goals that they wish to fulfil, they typically hold multiple other objectives. For example, a consumer may want their food basket to be environmentally sustainable but also seek it to be tasty, convenient and within the budget they are willing to spend. In some cases, environmental concerns may be consistent with other objectives. A consumer may regard a more sustainable diet to be fresher and healthier, for example.

However, in other instances, objectives may be conflicting. For instance, consumers often regard green and environmentally friendly products, like cleaning sprays, to be less effective than regular versions [17]. Products with environmental and social objectives, like organic food and fair trade, tend to be more expensive than conventional alternatives, and are thus in conflict with the goal of saving money.

For some consumers, environmental goals take precedence, but for others, they are of secondary importance. For the latter group, intentions to buy green goods are much lower, even when they register positive attitudes towards environmental consumption [18]. As noted by Carrington et al. [19 p.276] "secondary ethical concerns often are forgotten, rarely

integrated into shopping plans, and traded off with other salient considerations such as cost, convenience, and other ethical issues when placing items in shopping baskets”. While some consumers are “true greens” [18], the majority fall into other categories, or what McEachern et al. [20] call flexible consumers. These consumers jostle ethical and sustainability concerns against the achievement of other goals relating to frugality, perceived effectiveness, and convenience, and do not resolve these conflicts consistently. As such, sustainability intentions may be acted on in some occasions but not on others.



C) Failure to plan and habits

Behavioural intentions are most likely to be enacted when actors research and develop a plan as to how they will achieve their goals and anticipate how they may overcome any potential obstacles to enactment. For instance, sticking to a shopping list based on prior research is one means consumers can ensure concerns regarding sustainable food consumption are enacted [19]. However, without a clear plan, intentions are often forgotten [21]. For instance, one reason why energy saving activities lag intentions is that consumers fail to remember which of their devices are in standby mode [22].

The absence of plans leads consumers to rely on habits in their decision making. A habit is “a form of automaticity in responding that develops as people repeat actions in stable circumstances” [23 pg.91]. Currently, many consumer diets include poor dietary choices and less sustainable product options. However, changing behavioural habits is difficult and often information-based campaigns are ineffective [24]. Even if consumers become increasingly aware of sustainability concerns and wish to change their behaviour, this may not occur as bad habits endure automatically with minimal cognitive effort [24]. Breaking an existing habit requires greater cognitive effort [22] and any obstacles encountered can become “excuses” which prevent behavioural change.



D) Environmental cues

Environmental influences can both increase and decrease the likelihood of an intention being fulfilled, depending on their degree of consistency with the goal. Consumers may be aware of the influence of the environment on their decision-making but often this occurs sub-consciously [25]. Numerous studies demonstrate the influence of environmental cues on consumer behaviour. For example, consumers subliminally primed with a retail brand associated with thrift (Wal-Mart) were more likely to behave in ways consistent with the related goal, selecting value-based options over more prestigious alternatives [26]. In contrast, those primed with prestige goals were more likely to select a higher priced, branded option [26]. Cues do not need to be textual in nature. Spendrup [27] identified that birdsong positively and directly influences consumers’ willingness to buy organic carrots. Various studies look at the effect of music on consumer behaviour in store [28,29]. Of relevance to sustainable food consumption, Biswas et al. [30] found that low (versus high or no) volume music leads to increased sales of healthy foods due to induced shopper

relaxation. In contrast, high volume music and noise tends to enhance excitement levels, which in turn leads to more unhealthy food choices. Music can even affect consumers' judgements of taste – for instance chocolate is perceived as bitterer in the presence of 'bitter' music (vs. 'sweet' music or 'medium' music), but sweeter in the presence of romantic music [31].

The degree to which environmental cues affect behaviour depends on their degree of consistency with consumers' goals. Cues will have limited impact on behaviour where they are incongruent with current goals; for instance, priming a drink's brand name increases fluid intake but only for those who feel thirsty [32]. Environmental cues affect behaviour by increasing the salience of goals and the means to achieve them in a consumer's mind [33]. Thus, environmental cues increase the salience of congruent goals in consumer choice. In a retail context, consumers typically possess multiple objectives and environmental cues may increase the salience of one at the expense of competing other goals. For example, Köpetz et al. [34] found that amongst consumers who possess both food enjoyment and weight control goals, when the former objective is experimentally heightened, participants select more foods that are instrumental to that goal regardless of caloric content. Discount, sale and special offer signs prevail in most grocery retail stores, and these are likely to heighten the salience of frugality in consumer decision making. Few in-store cues focus on environmental goals. It may be that the goal of saving money crowds out intentions to purchase more sustainable foods, as in the absence of goal-activating stimuli. Such objectives stay "out of sight, out of mind" [35].



E) Moral hypocrisy

Moral hypocrisy refers to a "motivation to appear moral yet, if possible, avoid the cost of actually being moral.... it allows one to engender trust, and still relentlessly pursue personal gain" [36 p.321]. Moral hypocrisy thus involves citizens purposefully misrepresenting the values that they hold [8]. Empirical evidence suggests that consumer hypocrisy weakens engagement with fair trade products [37]. However, even if not purposefully misrepresenting their views, ethical aspects of purchases may be subject to biases which could be sub-conscious. Specifically, consumers may ignore or misremember ethical information to avoid a conflict between their "should" self (which monitors morality), and their "want" self [38]. Consequently, providing information on ethical aspects of purchasing may not affect consumer decision making, given the consumers may not accurately store ethical product information in, or retrieve from, their memory [38].

2.2 Retailers' strategies to close intention-behaviour gaps for sustainable food consumption

Having considered the potential reasons for intention-behaviour gaps, it is fruitful to consider how retailers can support consumer behavioural change toward more sustainable food systems, diminishing intention-behaviour gaps. Three broad strategies are apparent, namely: choice editing, choice expansion, and modifying the choice environment.

Choice editing

Choice editing involves a decision “upstream” of the consumer whereby a retailer takes action and refuses to stock products with poor environmental outcomes [39]. For instance, a retailer may impose environmental and social standards on their suppliers, delisting those which are unable or unwilling to comply. Consequently, only products deemed sustainable are stocked rather than giving consumers a choice between higher and lower sustainability alternatives.

Choice editing has several advantages. By making the decision upstream, it avoids intention-behaviour gaps that emerge due to a consumers' bad habits [23,24], unwillingness to engage in effortful processing [22], and memory biases [38]. Consumers may also lack information to make informed decisions regarding sustainability and may be happy to delegate such considerations to the retailer. For instance, 60 per cent of UK consumers surveyed by Ipsos MORI [40] believe that retailers should help them make more sustainable food choices through the use of minimum standards such as only stocking free range eggs or fair-trade bananas. Focus group evidence from the VALUMICS project suggests that while consumers generally believe that food supply chains should be fair to farmers and workers, it is not their responsibility to ensure this occurs. This is rather the responsibility of supply chain actors or governments.

Choice editing, however, has its critics. Some may push back against choice editing, believing it limits consumer sovereignty [41]. It also depends on consumers trusting retailers to make appropriate decisions on their behalf and that the latter can implement processes that deliver a more sustainable food system. Some fear that choice editing lacks democratic control and may have unintended consequences [42]. For example, small-scale producers in developing countries, which are unable to meet a retailer's private standards are excluded from accessing a market, jeopardizing their livelihoods [43]. There are also dangers for a retailer engaging unilaterally in choice editing. Specifically, such a retailer may lose market share and an unwanted reputation for higher prices if rivals continue to sell conventional products at lower prices [39].

Choice expansion

Choice expansion involves providing consumers with new, more sustainable products to choose from, without removing existing, less environmentally friendly options. It, thus, increases the availability of sustainable products, without limiting consumer sovereignty. Lacking sustainable alternatives may previously have been a barrier to purchase and a cause of an intention-behaviour gap.

Choice expansion, thus, leaves the decision at the consumer level. Consequently, it will still be subject to the difficulties of changing consumer habits and cognitive biases. One criticism of choice expansion is that it fails to lead to systematic transformation but is rather a niche marketing strategy [39], that appeals to the minority of “true green” consumers [18]. They are willing to pay extra for more sustainable food options. For the majority, conflicting goals may remain more salient at the point of purchase so that desires regarding sustainability are not realised in decision-making. Criticisms of the choice editing approach, however, may miss market dynamics. Many innovations, introduced as a form of choice expansion, while initially only appealing to a niche audience have over time become mainstream. For example, from being an initially fringe product, by 2020 the majority of eggs sold in the UK were free range [44].

Choice environment

The choice environment is the context in which decisions are made. Advocates argue that retailers can nudge consumers to socially desirable choices by creating store environments that are consistent with sustainable goals. Again, there is no loss of consumer sovereignty [41]. Retailers influence consumer choices through the positioning of goods and store aesthetics and layout. This influence is not always consistent with environmental goals and critics argue that retailers may rarely act as “benevolent guardians” [39]. However, there are numerous cases where retailers have changed the choice environment, for instance, by changing the order of items on a menu, to lead to more sustainable choices [45].

Critics argue that nudging via changes in the choice environment may be insufficient for three reasons. First, the overall effect on consumer behaviour may be limited where substantial obstacles to fulfilling sustainability intentions persist. Low-income households represent a case in point. Second, while the retail environment may be redesigned to incorporate cues activating environment goals, cues signalling other objectives are likely to persist. For example, it is unlikely that a food retailer eliminates fully sale and discount signs, so that the crowding out of sustainability by conflicting goals persists. Nudging studies conducted in laboratory studies, with controlled manipulation of stimuli, may therefore overestimate behavioural effects [46]. Finally, nudging may be insufficient in overcoming existing habits, especially when they are antagonistic to sustainability goals. Nudging effects, while significant, are often small [47].

Chapter 3

Behaviour change case studies



This section introduces three case studies conducted by REWE International in their food retail stores and discusses the extent to which such cases led to positive impacts, leading to more sustainable food systems. The cases are: a) retailer's fruit and vegetable certification and supplier social standards (choice editing); b) introduction of recyclable glass milk bottles (choice expansion); c) greening store design (change in choice environment).



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Case study 1: Social standards in the value chain (choice editing)

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Case study 2: Milk bottle in the value chain (choice expansion)

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Case study 3: Greening of supermarket stores (change in choice environment)

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3.1. Case study 1: Social standards in the value chain (choice editing)

Introduction

When considering value chains in the context of sustainable consumption, end-consumers are becoming increasingly concerned with the processes of production and the traceability of foods [48,49]. In addition, multiple NGOs call for greater scrutiny of supply chains and corporate accountability legislation requiring companies to ensure the respect of human rights and the environment in their global value chains [50]. **To address these concerns requires the introduction of additional layers of assessment to ensure the welfare and fairness for all participants of a given value chain.**⁴

REWE International AG has been implementing a private standard programme to improve the quality of fresh fruit and vegetables. In addition, it also aims to ensure a set of minimum worker standards in fresh fruit and vegetable suppliers. Thus, it is an example of private standards going beyond food safety objectives [42,51] to embrace wider social concerns. These standards apply to all the fresh fruit and vegetables procured by REWE International AG. Suppliers, and their products, that fail to reach the standards set are at risk of being excluded from the supply chain. It is, thus, an example of choice editing [39], whereby the retailer excludes options for purchase (produce not compliant with standards) rather than allowing the consumer to decide between purchasing compliant and non-compliant produce.

At its core, the objectives are to ensure:

- International Labour Organization (ILO) core-labour standards are met;
- Up-to-date audits exist for all producers, so that standard fulfilment can be assessed and verified.

This case looks at the effectiveness and impacts of the social standards introduced by REWE International AG for fresh fruit and vegetables.

The analysis draws on: documentary evidence from the retailer and written input of a certification organisation for social standards as well as interviews with key REWE staff (director of the purchasing department, senior sustainability manager, long term sustainability consultant to the retailer who was formerly the head of an NGO) and other supply chain actors (supplier of fresh fruits and vegetables, NGO with a focus on social standards in the value chain). Interviews occurred in Autumn 2020.

Rationale for introduction

REWE introduced the scheme when awareness of the importance of social issues around sustainability began to grow. Generally, in the years up to 2013, there was a focus on food safety, including pesticide residues on fresh fruit and vegetables. As projects to reduce pesticide residues were implemented successfully, attention turned to more general and reflective approaches to evaluate and enhance sustainability. These went beyond the previous core focus on food safety.

Due to the nature of the production of fresh fruits and vegetables, social issues became salient. Short peaks of work are typical in fresh fruit and vegetable production and they shape the yearly production cycle. Furthermore, the work is typically 'hard' and labour-intensive. Employment in fruit and vegetable farming is typically not seen as very attractive in many countries with well-educated and resident populations often unwilling to take such work. Thus, temporary immigrants often fill the gap. These workers are often less educated and may not speak the local language well. Sometimes, these workers take on the task without a work permit. Overall, their situation represents a high risk of exploitation.

Addressing this issue was both an ethical mission and a matter of reputation management for REWE's senior management. The business case was risk-management as it was felt that the compliance with minimal social standards is, rightfully, expected by consumers. While social standards do not play a significant role in the buying decisions of consumers at present, REWE believed it still to be important. Specifically, poor treatment of workers is an emotive, ethical issue and if suppliers mistreated workers it could have a negative spill-over effect to REWE's brand reputation. Tarnishing their brand could result in losing customers. NGOs as well as the media take an interest in this issue. Consequently, REWE introduced additional safeguards against the possibility of exploitation of fresh fruit and vegetable workers.

Implementation of action

REWE International AG identified seven social standards schemes (see Table 1) it deemed as ensuring ILO core labour standards are met. ILO core labour standards cover: the elimination of all forms of forced labour, freedom of association and right to collective bargaining, minimum age, ending the worst forms of child labour, equal remuneration, and elimination of discrimination. Fresh fruit and vegetable suppliers must be certified under one of the social standards schemes (e.g., GLOBAL G.A.P. GRASP, BSCI amfori, SEDEX/SMETA, SIZA, Fairtrade, Rainforest Alliance, SA8000). Some suppliers possess more than one social standard certification, particularly if they supply several grocery retailers internationally, as retailers differ in their requirements (for instance, one UK retail chain asks for BSCI amfori and does not recognise GLOBAL G.A.P. GRASP). As detailed in Table 1, the social standards certification schemes differ in some aspects but ILO core labour standards are the basis for most of them.

GLOBALG.A.P., founded in the 1997 and originally known as EUREP-GAP, was a European retailer led initiative, focused initially on environment and animal welfare issues, where G.A.P. stands for Good Agricultural Practices. The impetus for GLOBALG.A.P. was a growing consumer concern regarding food safety and changes in European food law, making retailers responsible for ensuring that the food which they sell is fit for human consumption. There is a, thus, responsibility on retailers to ensure that their suppliers have systems in place to comply with European food safety legislation and ensure traceability of produce.

GLOBALG.A.P. Global Risk Assessment on Social Practice (GRASP) is a more recent, voluntary module which assesses social practices on farms, considering specific aspects of workers' health, safety, and welfare. This is designed to ensure compliance with ILO core labour standards and suppliers should also adhere to national employment law (e.g., on specification of labour contracts, pay slips, working hours and breaks). As employment laws differ from country-to-country, national interpretation guidelines exist. In some cases, GLOBALG.A.P. GRASP details rules beyond that enshrined in national law, for instance the guidelines for Brazil state "For GRASP compliance, even when permitted by the law, the total number of hours, including overtime and ordinary, shall not exceed 60 hours per week in any week of the year. This shall be checked by auditor" (GLOBALG.A.P [53]).

With GLOBALG.A.P GRASP there is, however, no requirement to pay living wages as is the case for SA8000. Thus, working conditions and pay under the various social standards certification schemes may differ. A question mark exists in the extent to which different social standards allow for fulfilment of UN Sustainable Development Goals, such as ending poverty and achieving sustainable economic growth, full and productive employment and decent work. A danger of permitting suppliers to require certification under one of the social standards schemes, is that they will choose the one which is easiest to achieve for them, limiting improvements. However, if the retailer reduced the number of approved social standards certification schemes, focusing on those with higher worker welfare requirements, REWE would narrow its supply base, at least in the short to medium term. This would increase the risk of supply chain

Table 1: Comparison of the most important social standards and audits as of 2019/20

Criteria	GLOBALG.A.P.-GRASP	BSCI / amfori	SEDEX / SMETA	SIZA	Fairtrade	Rainforest Alliance	SA8000
Audit	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Certificate	No	No	No	Letter of Confirmation	Certificate (Company / Prod.)	Certificate (Company / Product)	Certificate (Company)
National Interpretation	Yes (basic prerequisite)	No	No	No	Product-Land-Price table	No	No
Ratings	Yes (Fully compliant, improvement needed, not compliant but steps taken, not compliant)	Yes (A outstanding, B good, C acceptable, D insufficient, E unacceptable)	No	Yes (Platinum, Gold, Silver, Bronze)	Yes	Yes (A best, B better, C good)	No
Living wage	No	No	Specification of calculation method		Minimum wage / fair-trade premium		Living Wage
Audit report	Yes	Yes	Yes	Yes	No	(Report)	No
Accessibility for certification	GG member eligibility		SEDEX member	SIZA member	Status as Fairtrade producer	Status as RA producer	List of certified establishments
Measures report	No	No	Corrective Action Plan Report CAPR	Corrective Action Plan CAP	No	No	No
Subject of Audit	Operation (Product)	Operation	Operation	Operation	Operation/Product	Operation/Product	Operation
Validity	1 Year	3 Years	3 Years	1-3 Years	3-5 Years	3 Years	3 Years
Audit frequency	Annual	3 Years	1-3 Years	bis 3 Years	Annual	Annual	Every 6 months
Geographical coverage	Worldwide	Worldwide	Worldwide	South Africa	Developing world	Developing world	Worldwide
Sector	Agriculture	Universally applicable	Universally applicable	Agriculture	Agriculture	Agriculture, Tourism	Universally applicable
Driver	Food- trade	Trade	Food Trade, Retailer, brand	Food-trade	Trade & solidary movement	Trade brand	Textiles, toys etc.,
Focus	Work	Work, H&S (Env/Bus.)	Work, H&S (Env/Bus.)	Work/ Environment	Work, (Environment)	Work (Environment)	Work

disruption, and losing market access entirely may not be in the best interest of vulnerable workers.

The costs of obtaining the social standards certification rests with the supplier. These can vary from a few hundred euro where part of another audit (like GRASP within GLOBALG.A.P.) and rise to a few thousand euro for a large co-operative undertaking a SA8000 audit. Given the volume of produce required by major retailers like REWE, the cost of social standards auditing relative to total contract value tends to be small, although there are very rare cases where the costs of social standards certification are an issue for suppliers.

Fresh fruit and vegetable producers can broadly be divided into two main groups: large farms with salaried employees, and smallholders, which might use only family labour and are too small-scale to supply retailers independently but do so through a marketing co-operative or other collective body. Both types of producers may be audited. For instance, GLOBALG.A.P GRASP distinguishes between Option 1 producers (larger farms, with salaried employees) and Option 2 (smaller farms and smallholders supplying through a marketing co-operative). Moreover, if only core family members (e.g., father, mother, son, daughter) living in the same household work on the farm a third option exists, where an audit is not required.

Outcomes

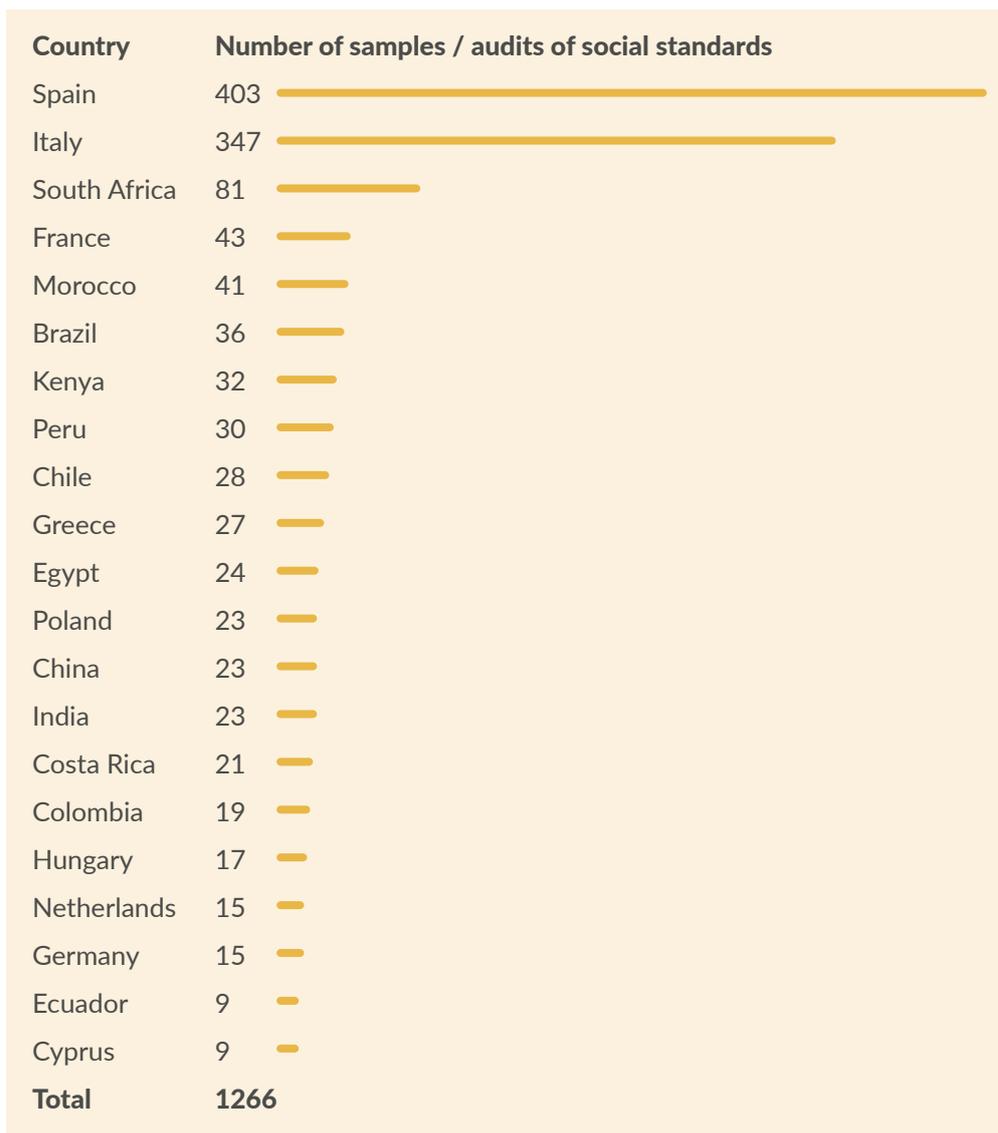
When samples are tested for pesticide residues at REWE, audits of social standards will also be scrutinized to check compliance. Since being instigated in 2015, compliance has risen from roughly 50% to over 80% in 2019 (see Figure 1). In 2019, over 1200 samples were scrutinized in a problem-based approach.

Figure 1: Changes in % Compliance with Standards (Years 2015-2019)



Figure 2 details the geographical coverage of sampling, which highlights the global nature of fresh fruit and vegetable supplies. The **main reason for non-compliance in 2019 was traceability related**. If traceability checks are passed, REWE inspects compliance with social standards audits. If social audit documentation is missing, suppliers have ten days to respond. A missing audit could be a minor paperwork issue. But in other cases, this may indicate more serious non-compliance problems. If a social standard audit failed, this is always followed up by REWE. If the reasons for non-compliance are very serious (e.g., forced / endangered labour), a rapid response mechanism is triggered to immediately address the issue. A failure to remedy the issue will result in the termination of the relationship with the producer. But firstly, a solution in line with ILO standards is actively pursued by focusing on the welfare of the workers. Delaying action is regarded as a risk to the workers and the retailer's corporate reputation. If the failure is less severe, the most likely action is agreeing on a plan with the supplier for remedying the problem.

Figure 2: Geographical coverage of samples taken, with audit of social standards



Suppliers initially had mixed reactions to the social standards measures. Some, especially of premium produce, already complied with such standards on both moral and business grounds. They believed that such standards aid supply chain resilience, and that innovation relies on the wellbeing of all parties. Fair treatment of workers helps ensure continuity in times of turmoil. During the 'Arab spring', for instance, suppliers reported that their farms performed far better while those that cared less about their workers and the community (i.e., in which the farms operated) faced greater disruption. **In some cases, the reaction of suppliers to the introduction of social standard requirements was less favourable, especially where a supplier felt the retailer was not treating them well (for example, that the price they received for their goods was too low).**

When a supplier fails a social standard audit, the retailer decides whether to terminate the relationship or not. Excepting the rare and very serious cases of infringement of ILO core standards like child / forced / endangered labour, **the most common outcome has been to agree a plan of action to achieve compliance.** Improvement rather than punishment is preferred as terminating the relationship completely may do little to help the employees of suppliers or smallholders. Often, the plans achieve their objectives and improve suppliers' / producers' labour practices, leading to meaningful benefits for workers. **However, remediation plans do not always work.** In some cases, suppliers or producers refuse to engage because they feel that the retailer has no grounds for interfering in how they treat their workers or if they feel the process is unimportant. In others, the threat or realisation of relationship termination is necessary for action to occur. For instance, one supplier from Turkey made no progress in the three years following failed audits and failings to audit. Consequently, the retailer terminated the relationship. This led to a change in the supplier's approach and management practices, so that the relationship with the non-compliant supplier resumed later. **Sometimes, suppliers make progress in remedying one problem that led to a failed audit, while failing to address other issues.** In these cases, the retailer must make a judgement as to whether to persist or end the relationship.

The introduction of social standards certification has not been without challenges. The main difficulties arose where:

- independent audits are perceived as an unnecessary intrusion by some suppliers;
- audits are not generally available;
- smallholders lack the means of organising audits or they are perceived as too expensive;
- local representatives do not exist, but rather spot markets dominate;
- national or regional governance structures are weak;
- shadow economy is important;
- children contribute significantly to family income;
- illegal immigrants lack protection and are afraid of governance structures;
- market prices are very competitive, with low margins and high price sensitivity;
- NGOs and media do not draw attention to problems.

Reflections on the case

Choice editing is appropriate where consumers are happy to delegate decision making to upstream actors and wish to see the removal of options deemed unacceptable [39]. This is apparent regarding unsafe food and consumers typically report that they wish workers in food supply chains to be treated fairly [12]. However, consumer expectations may exceed practice. That is the case for pesticide residues, where many customers expect zero residues [54]. In some cases, consumer desires may conflict, wishing for very low-priced food that is nonetheless also free from any exploitation of labour. Advertising using idealised images of agriculture and farm life may further widen the gap between expectations and practices.

The case illustrates that engaging with the social aspects of sustainability and widening the remit of private standards beyond food safety to include working conditions can lead to meaningful improvements.

In implementing these, it is important to build on generally accepted principles like the ILO-core-labour standards. This has both a moral and business case, with the latter being important for wider buy-in, beyond the retailer's sustainability department. Meaningful implementation requires not only the setting of standards and means to verify compliance, but also advisory and communication processes to help aid those non-compliant to remedy the situation. Often, non-compliant suppliers make progress and working practices improve. However, remedial action plans have not always been implemented successfully and REWE must make judgements when relationship termination is warranted.



3.2. Case Study 2 Milk bottle in the value chain (choice expansion)

Introduction

In the late 1980s, reusable milk bottles became gradually replaced by lighter single-use alternatives. Tetra Pak options grew in demand and responded to the convenience trend of consumers (lighter, unbreakable), which was perceived to be 'modern'. There was a trend to move packaging to Tetra Pak for the entire liquid assortments (mineral water, tomato sauce, etc.), and only some environmental NGOs kept arguing for deposit return schemes. Broader support began to form in the beginning of the 90s. This trend has gained momentum, and the "Zeitgeist" began to change in the face of climate crisis, decline of biodiversity, and a return to traditional values. Today, **awareness of the ecological and health impact of littered packaging has grown among consumers. This trend inspired the piloting and, subsequently, the introduction of more sustainable packaging alternatives.** In Austria, the initial goal of an environmental NGO was to develop a reusable milk bottle deposit and return scheme. On that basis, the view was to offer this packaging scheme for most liquids available in retailing. This undertaking is, on the one hand, supported and, on the other hand, required by relevant legislative processes such as the EU waste management law [55], and the circular economy action plan [56]. Updating the packaging is especially relevant for traditional food, such as milk. This initiative got stronger support, which may have come about through the atypical alliance of NGOs, the dairy industry,

and food retailers. This mix of collaborators played a crucial role in facilitating a pathway towards sustainability and was in line with the specific objectives of very diverse partners [57].

In Austria, Berglandmilch eGen is the biggest Austrian dairy producer and as a cooperative, they re-introduced the multiple-use milk glass bottle. Lisa Panhuber from Greenpeace CEE and Berglandmilch made the following joint press statement (translated):

“ Today, after 20 years, Berglandmilch brings back milk in a multi-use bottle with Greenpeace. This sends a strong signal to support the environment. Multi-use packaging reduces piles of waste, prevents waste in the nature, and ends the throw-away culture. ”

Josef Braunhuber, CEO of Berglandmilch, added:

“ Berglandmilch has the self-conception of being an eco-pioneer of this issue and wants to support keeping our environment clean. That´s why we completely abandon the single-use glass bottle and pursue the multi-use glass bottle, which can be refilled up to 15 times. ”

Berglandmilch supplies REWE International, which is a major retailer in Austria. For its organic own brand “Ja! Natürlich.” (Yes! Natural.), the switch to the multi-use glass bottle was part of REWE’s broader green packaging strategy [58] to support ecological goals.



Key facts of milk consumption in Austria

- The average milk-consumption is 77,6 kg/capita in Austria.
- 250.000t packaging material are used for milk packaging [59].
- The glass bottle was first introduced as single-use, due to the lack of facilities for a return scheme. In 2018, it was also seen as a field trial. REWE was among the first movers in this area.
- Berglandmilch is currently the main dairy company to use the return scheme glass bottle.
- The multi-use glass bottle was launched in March 2020 and REWE, as the retailer, was among the first to introduce it to the market.
- 17 Mio glass bottles (8% of overall production) are currently produced by Berglandmilch per year with a goal 40 Mio/per year [59].
- A glass bottle weighs about 500g, which impacts the feasible distance of transport (i.e., the weight determines what maximum distance of transport will be profitable).
- The bottles can be returned in all supermarket chains that sell the bottle (i.e., the return scheme is not chain specific).
- 22c is the returnable deposit for a milk bottle.

Reflection on the case (experiences)

A return to the glass bottle concept was in line with the EU-accession in 1995. Austria joined the European Free Trade Association (EFTA) and was afraid of losing against the competition of cheaper import options from Europe. The aim was to create differentiation of packaging to shield them from that risk. This initiative was strongly supported by regional governments. Unfortunately, this movement lacked customers' acceptance in the late 90s. Their preference was still the Tetra Pak packaging, largely due to the convenience of the packaging material. For this reason, it remained in the assortments of retailers. The investments to the new scheme did not generate the expected return, which consequently ended the project.

At that time, brand owners provided the packaging design, but it was common for suppliers to decide on the packaging material. Although the mainstream market was not open to the glass material, the organic own brand of a large retail chain started to systematically explore the packaging issue. Being a premium organic own brand, it was important for them to address all aspects of the product along the value-chain. For them, being in control of the entire process was also hygienic and included the packaging of the milk. For an ecological brand, this all matters. **The company conducted a deeper assessment of all sustainability aspects, which raised issues with its packaging.** The disappointing outcome violated one of the brands values: Doing the right thing in good conscience. **Thus, a "Green packaging" project was devised.** The sensitivity for new ideas of environmental NGOs heightened. This trend, coupled with the feedback from the customer-community, shifted the focus of retailing towards packaging. They covered this aspect in their regular market research activities.

Early 2018, Berglandmilch experienced stagnating – and even sinking – consumption of fresh milk. Milk, as a product, does not allow room for innovation. So, the focus of innovation turned to packaging. The climate crisis and the "Fridays for Future" movement sparked sustainability debates. Also, in Austria, the retro-trend of valuing "the good old times" was a reaction to insecurity that came with globalisation (food security, job security, etc.). All of these trends were relevant and influenced the decision to give the image of fresh milk an update. For this to happen, the packaging had to be renewed, which led to exploring glass as a possible solution.

At that moment, only limited options were available for glass bottling in Austria. Glass bottles were not used for milk in mainstream retailing. Only specialized organic stores offered these, and the volume was very low. The market alternatives included brown and transparent bottles and bottling facilities were in Bavaria and southern Tyrol.

Milk quality suffers when the product is exposed to light for a longer period of time. If consumers are not convinced about glass bottles and sales for milk is low, the property of glass becomes a real issue when products remain on a shelf. Therefore, quality departments along the value chain preferred the brown bottle for its sun blocking characteristics. By contrast, marketing departments preferred the transparent bottle, given that it optimally presents the white colour of milk to the customers. They interpret this as a 'quality' criterion.

When coming up with big new ideas, usually the retail sector is involved early on. The reason is to get a first feel of market success. If retailers are not convinced, a product gets vetoed. This could very well be a signal for ending the initiative and stopping product development. In addition, the input of senior and experienced buyers is critical as they have extensive knowledge when it comes to costumers' preferences. They also understand how these have changed over time. In the "Green packaging" project of the retail chain, glass was deemed the ideal material for the packaging of milk.

Austrian consumers voiced positive feedback and expressed the wish to buy milk 'produced and bottled in Austria'. This wish prioritised the project for further development. Focussing on this project represented a significant investment. To achieve project success, the dairy industry had to build a new bottling facility in Austria. This was in Aschbach, which is virtually the geographical middle of the main centres of consumption (in the east of Austria). Transporting the product further than 200km ruins the business case. The reason is that transportation becomes too expensive for offering the product competitively and for a profit. Although having many advantages, its weight does not make glass material (as packaging) a feasible option. This is in line with life-cycle assessment and a systematic analysis shows greater impacts on the environment when it comes to 'transport distance'. This decision of having a base in Aschbach also signified a switch to the transparent bottle. This was Aschbach's option (fulfilling the aim '... and bottled in Austria'); the brown bottle was



Key facts of multi-use milk glass bottle at REWE

- REWE sells organic milk in the returnable glass bottle deposit scheme.
- The milk is sold under the organic brand "Ja! Natürlich." and has to comply with a number of criteria that sometimes exceed general organic criteria for milk, e.g.:
 - Non tie-stalls.
 - Domestic (Austrian) production.
 - Minimum of 150 days pasture management.
 - 356 days field lairage possibility.
- At present (June 2020), the price of a returnable glass bottle of milk is about € 1,79 at a REWE supermarket. Nationwide, this includes the REWE-chains BILLA, MERKUR, ADEG, and Sutterlüty.
- Compared to other milk at REWE, anecdotal evidence shows that the sales figures for returnable glass bottle deposit scheme exceeded the expectations 3-4 times. For Berglandmilch, the outcome was similarly positive.
- Regarding customer segmentation, Berglandmilch aimed at targeting a younger audience that, traditionally, were not milk consumers. The dairy company was successful in this and enlarged their market presence to a great degree.

only available in Bavaria, Germany. Given the impact of the transparent bottle on the quality of fresh milk, the decision was taken to introduce milk with extended shelf life. Milk with extended shelf life will counter-balance the reduced protection by the transparent bottle. The next decision was concerned with the building of the bottling facility. The investment for a bottling facility for single-use bottles is far less than for multi-use glass bottles (that start in the millions of Euros). In light of the negative experience of milk bottle introduction in the 90s, the less costly option was deemed economically sound.

The introduction of the single-use glass bottle, albeit economically sound, was perceived as a step in the wrong direction by Austrian NGOs. For some time, they had campaigns promoting ecological and sustainable multi-use packaging. In their view, some littering advantages of glass versus plastic came down to the life-cycle ecological footprint: it is higher for single-use glass, compared with Tetra Pak. Greenpeace CEE, which was one of the NGOs campaigning to this end, immediately contacted the dairy industry and argued this case. Given the very good public resonance to the reintroduction of glass as a packaging material for milk, there was a constructive and trusting atmosphere in the conversations between the business and NGO CEOs. Their impression was that the dairy industry should have the courage to realise the much riskier and far more expensive option to invest in a multi-use bottling facility. NGOs promised to support the introduction via their communication channels in joint communication events.

Reflection on the business case

The trend of stagnating (if not sinking) milk consumption gave impetus to a material change of packaging in Austria. There was also the intention to attract a younger target group to consuming milk. Both aspects were achieved, according to the responsible managers that were deeply involved in the initiative in both the dairy industry and retailer. The sales figures of the milk product category increased (volume and value). Also, new and younger generations began to consume more milk.

Actually, the initial expectation (i.e., used as a basis to calculate the business case) was exceeded by far. For some retail partners, this meant that the overachievement was up to 10-fold the expectation. A second aspect carried equal importance. **In retailing, milk positively impacts the frequency of store visits, which is vital, particularly in times of declining store visits.** A third aspect was especially important for the producers of the cooperative. **The new and successful packaging was an enabler to “conquer” premium positioning of shelf space.** This was important for Berglandmilch as this position ensures a more stable income base. For the dairy industry, a fourth aspect was the **ability to potentially reach all customers in Austria through cooperating with many retail chains.** Not all retail chains support multi-use deposit schemes, which signifies a fifth aspect: the potential of differentiation for premium brands. Finally, this initiative represented a significant image win for all business parties and every party made use of it, in their widespread advertising and PR. This included NGOs and they received positive feedback on their involvement. Interestingly, they did not perceive it as very relevant for their image.

Reflection on strengths and weaknesses / challenges

Various parties highlighted the following strengths of the approach:

- **Gaining an intimate understanding of the consumer.** Nowadays, many Austrian farms are managed on a part-time basis. Farmers are managers (part of the cooperatives) but also consumers. This is an interesting situation for Berglandmilch as they are getting closer to consumers while collaborating with farmers. Overall, there was a climate that fostered high-quality communication with experienced stakeholders in the value chain. This included NGOs, who managed very close customer relations. The knowledge gained enabled the dairy company to become more sophisticated in sustainability, ultimately leading to a stronger business case.
- **Conducting market research that replaced gutfeel.** Early on, REWE identified packaging as an issue and incorporated this aspect in their ad-hoc market research. Eventually, the packaging component entered the regular market research projects and overtime, they gained a longitudinal perspective to capture trends, preferences, etc.
- **Experimenting with trial and error, rather than market research.** There is the belief that market research only leads to incremental innovation, rather than to radical ones. The reason is that market agencies are not always able to capture the true meaning of key issues that are relevant. At that time, they felt that the time is right to start the initiative. This has not come out of market research.
- **Utilising NGOs' knowledge, well-connectivity and marketing expertise.** Whilst the initial response of NGOs to the single-use glass bottle system was very negative, their constructive engagement with key market players led a positive change with the introduction of multi-use bottles.

Overall, the initiative is seen very positive. However, as a challenge of the approach, the following point has been noted:

- **In the 1990s, the push for a new packaging failed due to lacking consumer support.** Success was not meant to be, at that time. However, the negative experience of this undertaking stayed in the mind of managers. Therefore, it was challenging to take the step again towards multi-use bottles, given that it required substantial investments.

Bridge to behaviour change

The milk bottle was promoted in advertising and PR-channels, starting long before market introduction. At the actual introduction, there were joint communication undertakings between Berglandmilch and Greenpeace. These were characteristic and shaped the public opinion. Very large-scale advertising in conventional and social media channels supported the introduction. According to the interviewees, behaviour change occurred considerably and has exceeded the initial expectations of the project:

- For NGOs, there is a proof of concept. The introduction of a multiple-use deposit scheme glass bottle is economically and socially feasible and the case has been successfully made. It resulted in further activities which centred around multi-use deposit glass bottles, not limited

to the dairy sector. Glass was also considered for the packaging of, e.g., lemonade and beer. The proof of concept should also compliment the undertaking of going further in sustainability. By influencing legislation, sustainable packaging should be made mandatory.

- For the dairy industry, new and younger consumers represent a viable target segment that the industry were not able to reach. However, behaviour change occurred, and this segment was won for milk-consumption.
- Retail got the packaging they preferred, and their sales figures exceeded ten times their expectation.
- The product is more expensive than the product it replaced (about € 1,79 versus € 1,49, excluding the deposit). There is no 'hard data' available for (or against) a spill-over effect to other segments of assortments, regarding consumer preferences. But there is ample of evidence that other assortments take up the trend of (multi-use) glass packaging. The above-mentioned milk bottle is used by Berglandmilch for its own branded milk. Also, REWE and other retail chains use it for their own branded organic milks. Recently, Berglandmilch has also introduced a return scheme deposit glass bottle.

Learning with regards to retail strategies to foster sustainable consumption and production of food

The learnings should be analysed, particularly when keeping in mind that change management towards sustainability can often be transformative. This change can be dramatic, leading up to the extent of being revolutionary. It means that well established 'business as usual' models have to be disrupted, as they have led to an unsustainable equilibrium. The learning points will be structured along the following levels:

- Project;
- Extended Project;
- General (business case versus non-business case).



Project Level

- ↳ Initial assumptions were triggered by the "Fridays For Future" movement and relevant market players, such as the dairy businesses, beverage manufacturers, gastronomy, and others. The belief was that "green", "clean" and "traditional values" have become modern again for agricultural and dairy staple food (including milk). This belief has been affirmed.
- ↳ The approach to decision making was – at first sight – diverse. It was, therefore, challenging to tease out the general learnings. The initial decision to try and switch packaging was prepared unilaterally by the senior managers of a cooperative. They wanted the initiative to gain a wide level of support from co-operative members, but consultation risked slowing down the execution of the initiative. Top management stands fully behind this approach, given the cooperative nature of their business.
- ↳ The retail approach relied on market research to a much greater extent. However, it can be concluded that the extent of market research available was only used to bolster the gutfeel of senior management.

- ↳ The sustainability trend gained momentum and greater consumer awareness fuelled the trend with global activities (Friday for Future, etc.). The timing of the new initiative was perceived as very important for those having experienced a failed attempt in the 90s.
- ↳ Environmental packaging should be supplemented by up-to-date design to signal its premium image.



Extended Project Level (including the project):

- ↳ Premium packaging for premium products is required, from a business point of view. Nowadays, premium includes addressing environmental aspects of the product and its packaging. This signifies a window of opportunity to introduce sustainable packaging for premium products. We also witness the trend towards established values – a retro trend. The industry can use the full potential of these opportunities and take advantage of both trends towards greater sustainability and preserving values.
- ↳ An extension of the use of ‘return deposit scheme glass packaging’ for milk and other dairy products is underway. Currently, there is a viability assessment and planning activities for a second bottling plant for fresh milk in transparent bottles. This initiative goes beyond the bottling of fresh milk and will extend to other dairy products, such as yoghurt, plant-based milk, etc. There is the possibility to craft a business case with sustainability issues (at least) for premium products, such as for yoghurt, soft drinks and many other products that are constantly introduced in the market.
- ↳ After successfully launching sustainable packaging for the premium range, it is suggested to extend this type of packaging to more conventional assortments. This will take the packaging format into wider markets, which seems feasible. It surely represents a sensible business case. It stabilizes an attitude in the wider retail market and turns the project mainstream, while naturally driving consuming behaviour. This shift of mindset is the requirement for this sustainability trend in packaging to become successful in the long-term. In short, the trend will then become powerful and truly mainstream.



General Level

Business Case:

- ↳ ‘Trial and error’ instead of market research, based on 360° communication along the value chain (consumer focused).
- ↳ A pragmatic attitude of NGOs supporting sustainable business solutions can be extremely helpful. Their support provides further credibility. Also, additional communication channels can be utilised to reach the target segments.
- ↳ An alliance of Production/Supply/Retail/NGO is even stronger and should be pursued, whenever possible.
- ↳ Open communication is important for stressing the idealistic aspects of the sustainability initiative. This will lead to higher acceptance in the market, will positively impact the image, and will open possibilities for a later extension to a broader product-assortment.

- ↳ Enabling a good connection between (agricultural) products and the consumer is very important for long-term business success. Sustainability is an essential part of this story, which has to be consistently (re-)emphasised.
- ↳ Public support in terms of funding or regulation is rarely necessary. This involves a number of regulations and many parties, which slows down the process. 'Slowing down' translates into increasing costs and resources. Rather having officially all parties involved in decision making, it is sometimes better to let the market forces decide to move forward.
- ↳ Public support is helpful in the following cases:
 - In the calculation of business cases where no examples are common knowledge;
 - When initial investments are very high;
 - When value chains are very fragmented and vertical communication is not always open and transparent.
- ↳ In a value chain, there is an imbalance of power and the value gained with different types of relationships among actors with varying characteristics also. For instance, the relationship between the dairy company and the retailer is multi-faceted, as the retailer has their own brands that compete against the dairy company (supplier). This constellation adds another dynamic. Sometimes, business partners are also competitors in the value chain, because they compete in the same market. Sometimes the supplier does not want to share the profit figures made for particular products, hindering open and transparent communication. In a good functioning supply chain, this is not an issue (e.g., REWE takes care of the return system of bottles and Berglandmilch capitalises on this by paying a small fee). But if the constellation of relationships does not allow true collaboration on all levels, the possibility of sustainability innovations are significantly reduced.

No Business Case:

- ↳ A pragmatic approach might not work for NGOs because there is no synchronisation of business and sustainability possible within the status quo. There are greater macro-environmental forces (e.g., legal changes, technology, subsidised activities, taxes, lifestyle changes) that impact organisations directly. They will have to find ways of dealing with the forces that are not in their control. But they will have to be aware, so that they can act and remain competitive in the market. The danger is that the business might push idealistic approaches (e.g., glass bottles in the 90s) which the market does not accept. Then return-on-investment does not materialise. Later on, this outcome will be remembered as a business failure, which will make industry players reluctant to invest in sustainability.
- ↳ Public intervention in the form of funding (e.g., infrastructure), legislative support (e.g., reduced regulation, taxes), and pressure (new norms and standards, etc.) is necessary to create a market with a 'level playing field'. On these grounds, a disruptive, more sustainable product/packaging combination can succeed in the long-term. This can, then, turn into a business case. In this respect, NGOs especially stress true cost accounting.



- ↘ Smaller companies often do not have the means to launch a number of initiatives due to their limited resources. For instance, a smaller grocery store may be worried that they may not be able to comply with the green deal (e.g., farm-to-fork strategy). Thus, they cannot always actively drive sustainability, but have to creatively find ways of how to support such initiatives within their capabilities and resource constraints. By contrast, larger organisations are in the position of lobbying; thus, public policies are more easily harmonised with their business objectives.



3.3. Case Study 3: Greening of supermarket stores (change in choice environment)

Introduction

Just a few years ago, the topic of "greening of retail outlets" was an unpopular one. The priority for companies was realizing the maximum possible number of parking spaces next to the stores. Therefore, every tree was to be avoided as it reduced the number of parking spaces. Trees represented costs. Additionally, the maintenance costs with taking care of store green spaces were considered a challenge.

More recently, this view around store greening initiatives has changed significantly. **The aspect of sustainability gained increased attention among grocery retailers when planning their store construction.** The planning process started to require a comprehensive sustainability strategy with clear goals and activities.

With the increased attention around the issue of climate change, store greening became a central question. Not only REWE International is aware of this, but also its customers express that understanding. When constructing a new store or renovating an existing store, customer service increasingly receives inquiries to clarify why more green spaces were not considered or why more trees were not planted. It is also increasingly demanded by public authorities. Examples include the mandatory number of trees per parking space or greening measures imposed by the City of Vienna in order to obtain a retail outlet permit.

Finally, **store greening started to be perceived also as an opportunity for businesses to exert a positive influence in the community and proactively shape its own future.**

Rationale for introduction

The starting point for store greening considerations at REWE International was the "Greening of stores" project of the REWE International AG, which is aligned with the charitable foundation "Blühendes Österreich" (Blooming Austria). The REWE Foundation has been implementing external biodiversity projects since 2016, but there were hardly any activities in front of its own stores. Therefore, a proposal was developed for implementation also at these stores, initially with the construction of 'insect hotels' and accompanying areas for forage plants. On the grounds of 'lack of (customer) need', however, this proposal was rejected internally, at the time. This was based on the prevailing maxim: "As little effort as possible for maintenance, as little foliage and green waste as possible, as efficient as possible".

In 2017, a change came with the 'employee competition for sustainability'. Project proposals that were in line with BILLA's sustainability agenda, one of the supermarket brands of REWE International, could be submitted. One project proposal was an insect hotel with accompanying areas for forage plants. An internal jury selected the proposal and awarded the first place for this project. Subsequently, the project was implemented at eight locations in Austria.

The actual implementation was decided by regional management and sales. This was the first step in developing strategies for biodiversity at the stores as well. The next step was to develop a project for flowering meadows, which has been implemented at ten retail outlets.

A model outlet is currently being developed in the south of Austria, where all the greening experiences to date have been incorporated. Also there, the external motivating factor is present: the land was leased under the condition that the landlord participates in the architectural planning, including a sustainable design of the site. There was also strong customer interest in greened retail stores. This project serves, therefore, as a comprehensive basis for analysis: it must be economically feasible, replicable and suitable to reflect market processes in daily practice, while meeting sustainability requirements. It must, therefore, be scalable to hundreds of stores.

As credibility is a key factor in engaging customers in the initiative and motivating them for sustainable consumption, external and visible signs explaining the details of store greening design measures have also played an increasingly important role.

Implementation of action

Store greening projects must have an impact on both customers and employees. In this context, the sustainability department in the company is crucial in first involving the stakeholders all the way to the point of sale. Results from dialogues with stakeholders from the sustainability community should also be considered. A framework must be agreed upon among various internal departments, including marketing, feeding into strategic guidelines for the greening of stores across the entire organisation. Ultimately, top-down management engagement is very important in order to ensure that the initiative is rolled out in a concerted manner throughout the company.

One of the first practical measures that were taken care of is the flowering meadow in selected branches, accompanied by insect hotels. Further input also came through continuous dialogue with the stakeholder community. In the case of the store greening concept, this began at a basic level, with hedges and plantings recommended by the nature conservation sector. This was then extended to concepts for the entire store. In addition, other hotspots, such as soil sealing, were worked on.

There is also an information board about the initiative, which has attracted attention. Photos with positive feedback on the social media channels were the first positive signs. Visibility is often imperative for success, so the project must be visually appealing, alerting consumers to the notion of biodiversity.

It is often a long process before there are binding guidelines for store greening in companies. It often starts with a lighthouse project that has proven to be economically feasible. In the case of REWE International, as the cost of implementing the above-mentioned requirements in the pilot stores were reasonable, scaling up the initiative became possible. From this experience, the results were then turned into guidelines, which are currently in their final approval phase within REWE International.

Note on Blühendes Österreich (Blooming Austria)

Blühendes Österreich is a private foundation of REWE International and was established nearly six years ago for the preservation of biodiversity. The foundation's mission is to enable the preservation of ecologically valuable areas, to work with other institutions on nature conservation projects, and to take measures to raise awareness. The foundation was very helpful, because it allowed us to access a very professional network for high-quality technical support and, thus, to carry out the store greening.

The REWE International guidelines for the construction and maintenance of ecological friendly grassed areas around the stores started to be developed in 2019. With more than 2,000 stores in Austria, the company has an enormous potential to support biodiversity activities within its direct area of influence.

Objectives of the guidelines include:

- Conserve and support the biodiversity of domestic flowering plants;
- Conserve and support the biodiversity of domestic insects and other small animals such as birds, bats, hedgehogs and many more which need insects and small animals as feed;
- Improve the microclimate;
- Save resources, e.g., less water use, less fuel for mowing, less costs for maintenance;
- Raise awareness and foster positive perception of the investment in the environment for the customer.

From the technical point of view, **store greening includes the following areas:**

- **Outdoor areas:** The first projects were implemented in these areas many years ago. Lawn troughs, as part of the outdoor areas, allow the necessary infiltration of surface water. Features such as flowering areas are now being added as well;
- **Green roofs:** Green roofs are mainly demanded by regional authorities. In parts of Styria, a state in the southeast of Austria, for example, it is not possible to get the permission for a store without green roofs;
- **Facade greening:** This is technically the latest development.

The surroundings of 20 stores and the headquarter in Wiener Neudorf, in Vienna, have been adapted with ecological friendly grassed areas. Additionally, seven new areas have been installed in 2020. An evaluation regarding the biodiversity aspect was performed in the end of June 2020 and presentation boards have been installed in all those places to inform customers and pedestrians about the initiative.

Outcomes

At REWE International, several projects with individual greening measures in retail stores have already been implemented (e.g., flower strips, insect hotels, tree plantings) and a flagship store integrating all measures is in the construction phase. In this sense, an assessment is only possible to a limited extent.

Despite not yet being assessed through a dedicated study, **experience shows that the involvement of the community in the planning process of branches increased the attractiveness of the location.** Store greening measures have also made it easier to acquire permits to set up branches. The "license to operate" is, thus, often easier to obtain. By hindsight, these are good indicators of activities. Initially, the "license to operate" represented the highest value for management.

However, **due to the increasing customer involvement with the topic of store greening, more and more additional measures are resulting from it.** For example, sustainability requirements have generated additional multi-stakeholder dialogue processes, which can be very constructive and innovative. The sustainability department is the internal amplifier of these impulses and translates the ideas into practice in their own stores. The local councils, on the other hand, were not blocking the initiatives, but rather perceived as being constructive and supportive. As a consequence, this led to an increase in motivation among employees interested in this direction. As a result, the attractiveness as an employer also increased.

Greening is also about differentiation, which can be perceived by customers as soon as they arrive at the greened parking lot. It should appear natural and in line with the surroundings. The question ‘what does this store have to do with me and with my surroundings?’ should be answered. That is where the customer connects with the store first. The feeling is no longer one of efficiency, as it is sometimes the case with discounters. Otherwise, the customer is only conditioned to the (low) price.

Customers are increasingly demanding the greening of stores, which means there are also positive differentiation and image improvement opportunities for the food retail industry. The topic of biodiversity and the disappearance of pollinators is rising in importance. The understanding and enthusiasm for further measures increases with it as well. In every respect, communication with customers is always very important. In addition, the company produced a small information folder for employees in stores with greening measures. Information in this folder explains why they carry out these greening measures and describes what each individual can do to help preserve biodiversity and their habitats.

Reflections on the case

In the stores where measures were implemented, the feedback from employees and customers was positive, which further increases the value of the initiative.

The collaboration between the sustainability and the construction/technical departments generated a lot of innovation. Theory could be combined with practical implementation knowledge and the feasibility of the projects could be tested. The economic efficiency could also be presented in this way. **The experience demonstrated that various internal and external retail stakeholders are particularly important when it comes to store greening projects,** including consumers, politicians and legislative public authorities, as well as various internal company departments such as business management, sustainability, technical, marketing and sales.

Other positive results of the initiative include the opportunity of REWE decision makers to experience it and the inclusion of the project as part of the company’s overall strategy. On the other hand, **the costs of the measures still represent the biggest hurdle, and a paradigm shift must be made to overcome it.** Many measures recoup their expenses in longer periods than what is normally taken as a payback/return-on-investment

horizon. The reason is that it flows indirectly into the business results (e.g., via higher customer satisfaction, sympathy for the company, or positive reputational impact). To address this challenge, REWE International is currently working on new methods to be able to integrate more meaningful aspects into its profitability calculations.

Another challenge is the lack of experience in the market in terms of store greening. In the beginning of the initiative, it was particularly difficult to make a cost calculation per planted tree or for a m² of flowering meadow. Depending on the location and climate, costs can vary greatly. However, this is a basic requirement to roll out the project.

The store greening within REWE International can still be optimized. **For a broad roll-out, the content of the project, as well as the communication with the employees and branches, needs to be crystalized in strategic guidelines to support the process.** Such guidelines are currently being developed and are in their final approval phase. This has to be done with the customer in mind, especially as climate change is increasingly on the agenda, and customer feedback and complaints continue to arrive. Clearly, more attention must be paid to the selection of trees that are fit for coping with the climate, as well as to sufficient root space.

For the future, however, more market research data needs to be gathered on this topic. Further evaluation needs to be done on what works and what can be improved.

Bridge to behaviour change

A direct impact of store greening on customer purchasing behaviour has not yet been assessed. This, however, was a topic largely discussed between REWE International and the other VALUMICS partners, with potential for further investigation and implementation in the future. Aspects such as the importance of store greening measures on consumer product choices and possible influence towards more sustainable consumption behaviours would add a new and relevant sustainability dimension to the initiative impact analysis done to date.

More generally, customer surveys have shown that visual and design measures in front of the stores are not necessarily consciously perceived and not fully understood by customers. Amongst the impression that the initiative was generally well received, there were also customers who reported to prefer a perfect lawn over a flowering meadow, in front of the store. Often, however, this was due to unawareness of the positive impact of a flowering meadow on biodiversity. Some customers even believe that the company's intention is to save the cost of mowing the lawn. Therefore, it is very important to install information boards that make the transformation and benefits of store greening initiatives accessible to customers. These will enable them to experience the transformation in full and to overcome their initial wrong impressions.

Admittedly, the narrow green strips and parking lot edgings look often unsightly. Here, other solutions are investigated, such as shrubs, ground covers or longer growing plants, such as mullein. It is also important to make sure that no watering is necessary as well as that no watering is actually done. In any case, the employees in the stores concerned must also be trained accordingly. Otherwise, they will not be able to sympathise

with the redesign and will not be able to make customers enthusiastic about the transformation.

Learning with regards to retail strategies to foster sustainable consumption and production of food

Practicability and economic efficiency in cost-intensive projects. The primary focus to ensure internal buy-in must always be on practicability and cost-effectiveness. The measure must be analysed from all perspectives of the relevant stakeholders. Otherwise, it may not work and may not be feasible. In the worst case, it may also demotivate the project team because implementation or scalability is not feasible.

Expertise in the context of the climate crisis. The greening of retail outlets can only be successful if expertise is at hand to fulfil the goals of increasing biodiversity and positive image. This is a particular challenge in times of global warming. For example, trees require certain conditions to grow well, as well as maintenance efforts, which can become rather substantial. There is a need for ongoing assessment of what are appropriate tree species and how they need to be planted to withstand climate change. Planting trees that are suitable for local conditions is very important.

High customer acceptance has a positive effect on sustainable purchasing behaviour. According to anecdotal evidence, customers feel more comfortable with visible greening measures and are, thus, subconsciously sensitized to sustainable consumption. Often, this is only a perception or feeling. The customer must, therefore, also be actively informed about greening measures. Moreover, the expectation should be fulfilled in the store – in the assortment, and in the freshness and overall presentation of the products.

Planned and deliberate investigation of potential impacts on customer purchasing behaviour towards sustainable consumption could be integrated in the future. For that purpose, a supplementing detailed survey (i.e., in-depth market research) would be useful. To assess the influence on customer behaviour, comparisons could be made, e.g., between certain purchasing patterns prior and after the store greening intervention, and also among different stores, with the overall goal of gathering learnings that can be relevant and generalisable at the company level. There are also changes that occur over time, which cannot be modelled. Therefore, evaluations must be carried out at regular intervals. Ideally, the additional costs for greening will eventually be compensated by positive effects.

Economic efficiency calculations: There is also a need for new calculation methods for economic efficiency that better reflect long-term effects.

Greening and climate adaptation: A general learning was that store greening has a positive effect on climate change adaptation (e.g., by enabling a cooler microclimate and helping to cope with heavy rain downpours).



Chapter 4

Conclusions

In the concluding part of this report, we reflect on the three cases, in terms of developing retail strategies for more sustainable food choices. Each case represents a specific strategy – choice editing (social standards), choice expansion (returnable milk bottles) and choice environment (greening of store environment). Across the three cases, we recognise a logical flow, starting with intuition and identifying trends based on market research, leading to greater engagement with stakeholders and partnerships resulting in competitive advantage. Finally, innovations were introduced, supported by communication. From the cases, we draw seven wider lessons for retailer led sustainability initiatives.

The cases demonstrate that intuition was the trigger for sustainable initiatives at REWE International. For instance, in the milk bottle case, we see that top management had a good sense of a market need. Market research confirmed the intuition (importance of packaging for differentiation). When it comes to the social standards case, the intuition was that suppliers must meet core ILO labour principles with a failure to do so raising both a moral and business concern (potential damage to corporate reputation). This was followed by a comprehensive, independent review of social standard certification schemes to identify which ones ensured that core ILO labour principles were met. This deeper understanding helped in identifying vital market trends – specifically consumers’ growing interest in how food supply chains are managed, social responsibility, sustainability and biodiversity, as noted elsewhere [1,12]. With regards to the store greening case, sustainability and biodiversity gained greater NGO, employee and customer attention, which led to bottom-up initiatives that resulted in the redesign of retail stores. Sustainability also played a role in the milk bottle case, along with being ‘clean’ and preserving old values (a retro-trend).



Lesson 1: Retailer led strategies for more sustainable food choices must start from an understanding of market trends and an appropriate evidence base.

Responding to market trends requires collaboration with stakeholders. This often involves novel forms of co-operation. For instance, the returnable milk bottle case involved Berglandmilch (dairy company) as well as REWE (retailer) working together with NGOs (such as Greenpeace) for the very first time. Gaining stakeholder support publicly by, e.g., joint press statements, created greater awareness in the market (milk bottle case) and also generated positive feedback from customers and employees (greening case). The social standards case illustrates that progress on audits depends on the active engagement of suppliers. In working closely together, stronger partnerships have been formed between the retailer and suppliers / producers (milk case and social standards case) and greater interaction internally and with external stakeholders has taken place (greening and social standards cases), which enabled innovation (milk bottle and greening cases).



Lesson 2: Retailer-led initiatives for more sustainable food choices require effective collaboration with stakeholders, with innovation depending on forging new or strengthening existing relationships.

The greening case highlights that **innovation does not need to come from external stakeholders or be imposed top-down. It rather emerged from a bottom-up initiative as employees generated ideas for sustainable innovation.** The introduced initiatives also generated benefits for REWE. For instance, store greening measures made it easier to obtain licenses to open new branches (greening case). The moral case for ensuring all suppliers complied with ILO core labour principles was strengthened by a business case for protecting corporate reputation and this helped the social standards initiative gain greater traction. Although this was not the goal when it comes to the social standard case, reaching new market segments and cultivating a positive domestic country-of-origin effect (milk case), and improving corporate reputation and credibility (greening case) are noticeable competitive results of these sustainability initiatives.



Lesson 3: Sustainability initiatives will gain greater buy-in within a retailer, where there are both social / environmental benefits and a business case.

Competitive advantage, as an outcome, was communicated in the market through unconventional channels. For instance, the retailer could utilise new market channels provided by NGOs (milk bottle case), external visible signs explained the details of the greening initiatives (greening case), which all enhance corporate reputation overall (social standards case).

The initiatives are future-oriented, which may require a culture change to truly become sustainable. The vision of all companies involved should be linked to needs-based customer research (milk case) and a direct connection to fostering more sustainable food purchasing behaviours remains undeveloped (greening case). Unfortunately, some suppliers are/were unwilling – or reluctant – to engage and do/did not see the fulfilment of vision as an important goal (social standards case). One difficulty was that the initiatives were often seen in isolation and stand-alone projects rather than being part of a wider, holistic, big picture. The visions were top management inspired, supported by strategic guidelines for the entire company (particularly in the greening case). These aided a complete roll-out of initiatives, but it is important that the visions are substantiated by the market before engaging in operationalisation.



Lesson 4: Retailer led sustainability initiatives should emerge from a holistic vision as to how sustainable food production and consumption systems can be achieved, linked to needs-based customer research.

At present it is difficult to assess fully the outcomes of the cases and the impact on actual purchasing behaviour. Also spill-over effects on other products in shopping baskets would be interesting to understand, so that this can be considered in driving market-oriented innovations. Measuring outcomes robustly was not built into the design of the initiatives. This limits the strength of the retailers' messages regarding the benefits of their sustainability initiatives, hindering interest from others. Unfortunately, NGO and media attention has been low (particularly in the social standards case). Across the three cases, consumers were often unaware of the initiatives.



Lesson 5: Robust measures of outcomes should be incorporated into the design of sustainability initiatives, so that more compelling messages can be communicated to stakeholders and to aid company learning.

There is a danger that consumers may misinterpret a retailer's motives for engaging in sustainability initiatives. For instance, some customers misinterpreted the greening of the parking lots as the retailer seeking to cut costs on mowing grass (rather than aiding biodiversity). The milk bottle case leaves a question mark over whether it was wise to sacrifice fresh milk over milk with a longer shelf-life. If a retailer's motives for engaging in sustainability initiatives are interpreted as insincere by consumers, the latter will not engage and in fact, the initiatives could prove counterproductive [60,61]. Understanding consumer perceptions of sustainability initiatives is thus important, as a retailer's good intentions may not always be perceived as such.



Lesson 6: Deep insights help make customer-oriented decisions, allowing for communicating with customers in a meaningful way, that avoids misinterpretation, and more active engagement with sustainability initiatives.

Finally, when looking at the three cases holistically, the initiatives could spark an organisational transition of mindsets, behaviour, and vision. Such change requires the investment of time and resources and should be supported by a change programme that involves all stakeholders. However, for positioning sustainability as 'mainstream', the wider sustainable goal should be fully supported by everyone – top management, employees, processes, working procedures, shared vision, and common purpose. Consumer trends indicate that the sustainable market segment has grown from a niche and is turning mainstream [62], albeit with a gap between intentions and behaviour, as noted in Section 2. For companies, the challenge is to devise strategies that minimise the intention-behaviour gap and to become or remain a meaningful player before realising that the market has moved on without being part of it any longer. It is unlikely that choice editing, choice expansion and choice environment strategies individually are sufficient, but they represent tools which can be combined

into a coherent strategy for shifting to more sustainable food systems. Recognising this aids engagement of actors across the supply chain in behaviour change initiatives, but it is often lost in the day-to-day management of operational issues.



Lesson 7: Retailer-led sustainability initiatives should be consistent with long-term consumer trends and when well-designed provide a mechanism for shifting to more sustainable food systems.

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