

Employee-driven eco-innovations

Why companies should consider
spillover effects

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Companies and organizations are increasingly facing rising expectations from their stakeholders and stricter legal requirements regarding their contribution to sustainability. But how can organizations promote sustainable behavior and meet the expectations placed on them? A key part of this is the sustainable innovation of its own employees, whose aim is the conservation of natural resources. Several studies have already shown that such employee-driven innovations make a significant contribution to reducing the ecological footprint of companies. Existing research also indicates that behavioral spillover effects can occur in connection with pro-environmental actions. From a company's perspective, these can have both positive and negative consequences. Therefore, it is worthwhile for organizations to closely examine the underlying mechanisms.

Environmental Behavioral Spillover

A behavioral spillover occurs when past behavior influences a person's future behavior. Thus, practicing a pro-environmental behavior can either increase (positive spillover) or decrease (negative spillover) the likelihood of performing a subsequent pro-environmental behavior. Consequently, past behaviors can metaphorically „spill over“ into future behaviors.

For example, scientific experiments have shown that subjects who received weekly feedback on their water consumption reduced their water use but significantly increased their electricity consumption compared to the control group. Against this background, it is conceivable that such spillover effects could also occur as a result of resource-saving employee innovations. For instance, if employees develop an idea for saving resources in a company pro-



cess, this might give them the feeling of having made a sufficient contribution to the organization's sustainability performance, leading them to less environmentally conscious behavior. On the other hand, studies have shown that an initial successful resource saving can also be an impulse to look for further resource-saving potentials. While negative behavioral spillovers mean that companies are perpetually trading water in terms of sustainability, positive spillover effects can give a real boost to sustainability efforts in companies.

Factors Influencing the Emergence of Spillover Effects

Since positive as well as negative effects are conceivable as a result of employee-driven innovations, it is important to understand which factors

cause the different behaviors. Research has already developed various explanatory approaches for the occurrence of spillover effects, often referring to established theories from environmental psychology or the social sciences. In addition to ecological motives, moral motives such as an individual's sense of justice can also influence future environmental behavior.

From an ecological perspective, several studies have shown that ecological self-identity and self-efficacy are important mechanisms in the development of positive spillover effects. For example, resource-saving innovative behavior by employees may make this person perceive themselves as environmentally conscious and therefore behave more environmentally. The successful practice of innovative behavior can also positively affect self-efficacy perception. A person's perceived self-efficacy refers to their personal assessment of mobilizing the necessary skills to cope with specific situations. Successful implementation of certain behaviors, such as initial resource-saving actions, can strengthen confidence in one's own abilities. Experiencing high self-efficacy can, in turn, lead emplo-

yees to search for further savings potentials.

A possible explanation for the emergence of negative spillover effects is the concept of Moral Licensing. Moral Licensing describes a behavior where people can perform a bad behavior without guilt if they have previously committed a good deed. After acting "good" in an initial behavior, they behave as if they had earned the moral right to reward themselves in a subsequent behavior. In the metaphor of a „moral bank account,“ good deeds thus create moral credits that can be withdrawn to acquire the right to perform „bad“ actions. This behavior pattern has been observed in several studies on sustainable action. The development of a resource-saving idea by employees can thus lead them to perceive their innovation as a contribution to the organization's sustainability performance, which could license an anti-environmental behavior elsewhere.

Implications for Companies

Several important implications can be derived from the existing research on spillover effects for companies. First, it is important to be aware



of the existence of such behavioral effects. To avoid undesirable compensation effects, decision-makers should consider the possible consequences of behavioral spillovers in advance when developing sustainable innovations. For this, it is important to know the possible causes of the emergence of spillover effects. Environmental and social psychological theories help to better understand the various influencing factors on sustainable behavior and to develop targeted interventions to prevent anti-environmental behaviors.

At the same time, companies can use the existence of behavioral spillovers to further increase their sustainability performance. Companies can take steps to create the conditions for positive spillover effects so that initial innovative behavior acts as a catalyst for further resource-saving behaviors. For example, ecological self-identity and self-efficacy of employees could be increased by explicitly pointing out the company's previous successes in connection with resource-saving innovations. At the same time, it seems sensible to fairly compensate employees for their achievements in sustainability efforts to weaken moral licensing thoughts. It may also be desirable to work with specific sustainability goals and regularly remind employees of the achievement of these goals. This would sensitize employees to the importance of further innovation efforts to achieve an overarching goal.

Conclusion

In summary, it can be stated that employee-driven green innovations can lead to spillover effects that have a decisive impact on the sustainability performance of organizations. Taking a long-term perspective in evaluating emplo-

ee-driven innovations is therefore important. By creating suitable framework conditions, initial innovative behavior can also serve as a catalyst that promotes further resource-saving behaviors. Overall, this underlines the importance of a comprehensive assessment approach for sustainable innovations, in which not only individual behavior but also long-term consequences must be considered.

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