## Join the circle.

This thesis investigates user motivation and barriers in returning Bosch drills from the DIY Tools range, aiming to propose an effective return service. To inform the design process, stakeholder analysis, literature review, and customer research were conducted.

The primary objective of this research was to identify key factors that influence the development of the return service. Stakeholder analysis and meetings with the company provided valuable insights into major stakeholders, including the company itself, legal regulations, customers, and the environment. Through a comprehensive literature review, pain points in reverse logistics were identified, guiding the selection of a behavioral model. Extensive customer research was conducted to gain a deep understanding of the customer perspective on end-of-use (EOU) reverse logistics. Design guidelines were formulated based on the insights gathered from these activities.

The stakeholder analysis underscored the significance of satisfying all major stakeholders to ensure the success of the return service. The literature review revealed pain points in reverse logistics and emphasized the importance of incorporating behavioral change elements. The customer research highlighted the crucial role of customers in the success of the return service. Drawing from these findings, design guidelines were established, such as creating a comprehensive solution that integrates data from various consumption stages, utilizing the same data carrier as a touchpoint, and simplifying the return process while enhancing customer motivation. Motivational elements, particularly those emphasizing sustainability, were identified as key drivers to encourage customers to choose the return service.

As a result of the research, a QR code solution was developed, offering an integral approach that provides easy accessibility for customers, incorporates multiple customer stages, and collects usage data for reverse logistics purposes. This solution not only benefits customers but also holds the potential to streamline post-return processing. Additionally, the proposed return service aligns with potential future legal requirements concerning the digital product passport.

This thesis contributes valuable insights into user motivation and barriers associated with returning Bosch drills, culminating in the recommendation of a return service. The research findings inform design guidelines aimed at creating an effective and user-centric return process, ensuring stakeholder satisfaction, and promoting sustainability in reverse logistics. The proposed QR code solution offers an accessible and data-driven approach while also preparing for potential future regulatory requirements.



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