Servitization of ergonomic measurement tool: Developing and validating a market offering for health care through lean iterative experiments

Bachelor thesis summary by Amy de Lange

The goal of this project is to develop and validate a market offering for an ergonomic measurement tool, named 'ergometer', for health care. Throughout the research project, it became clear that a full-service market offering fits the customers' and company's needs. To obtain this insight, the customers' problems and desires developed a unique value proposition. By a *full-service* concept, we mean a service that comprises the whole process of effectively providing meaningful insights into the status of physical load of health care organizations. The ergometer has the potential to provide such a full service. However, to provide an optimal service, it is necessary to create the right market offering.

The company that created the ergometer is Indes, an experienced player in the world of physical load in health care. Indes actually offers a whole range of solutions for reducing physical load, under the product name 'esense'. The esense product range includes various kinds of patient lifts, with electrical drive support, as well as esense-kits (wheels with an electrical drive support system) that can be attached to any rolling device. Indes developed the ergometer, after having observed that the market lacks tools that can objectively measure the forces performed by a user when moving a rolling device. The ergometer can be attached to every rolling device, and measures the push, pull and sideward forces during the daily activities of its users. This makes it possible to get objective insight into the physical load of employees, in contrast to the subjective questionnaires that are the current standard for getting such insight.

A good user and customer experience is essential for obtaining the full potential of the ergometer. To create one, it is first of all needed to identify all the important aspects of a fitting business concept. This investigation will take into account: all the influencers of technological innovation, the customers, end-users, and the performing company. To accelerate the design process the *lean startup* approach is used to choose the right market offering. During the 'solution' phase of the lean canvas, the *design thinking* approach was used to design for the user. Overall, the project followed the timeline of the *double diamond* method. By doing so, small experiments are performed to obtain knowledge from the field in an early stage of development. By defining (1) the underlying problem, (2) the problem owner and (3) the end-user; a 'unique selling point' or 'unique value' could be made clear. By knowing the value that the customers are willing to pay for, and knowing important requirements that are connected with that, the solution could be designed.

This point is crucial in the direction of the business concept. We compared different possibilities in market offering for making the right decision. This comparison made clear that the right choice is to offer the hardware (the device) and the software (the data reporting) on a pay-per-use model. User Experience (UX) design is used to develop the right customer journey, to guide the customer (manager) and user (ergo coach/caregiver) through the process of ergo measuring. Afterwards, a User Interface (UI) has been designed and tested with different users. The UX as well as the UI have been tested three times, through three iterations.

The final version of the service offering consists of: the right user and customer journey, an UI prototype matching the esense branding, and a strategic business plan. Due to the fact that the ergometer is a new innovation for the customer, it is difficult to define the right market offering, prize, business pitch, etcetera. However, all of these elements have been validated through minimum value products or customer interviews. After this bachelor assignment, the collaboration with Indes will continue, to explore the option of offering a training tool and to go further in implementing the design.