

Summary of bachelor assignment for Hulshof Business Cases B.V.

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Hulshof Business cases B.V. (Hulshof), a company that makes specialized cases for the professional market, gave me the assignment to further develop a product-idea that they had. This product would satisfy the wish of Hulshof to make consumer products. After doing research it was found however that this product has little to no potential. Therefore a new product-idea was formed and a design was made. This new product is a business trolley suitcase that is suitable as carry-on luggage on a plane.

The initial assignment was to further develop a laptop sleeve which can be folded into a laptop riser. The world is becoming more and more mobile and because mobile workers and flex-workers work mainly on laptops, bad ergonomics can lead to various kinds of physical problems (Janneck, 2017)<sup>1</sup>. Therefore it is wise to raise the laptop and improve ergonomics.

The problem with this product-idea is that in order to be able to use it as a raiser, some key functions like water resistance or additional storage space have to be removed. Moreover the sleeve itself is actually too big to be a laptop sleeve but misses too many functions to be a laptop bag. According to interviews with specialist in the field of ergonomics a laptop raiser has to be able to raise the laptop to various different heights to accommodate any person. Because the product-idea does not have the proper requirements it has little to no potential to be a commercial success.

After the research it was concluded that it is nearly impossible to create a product that has both bag-like features and is ergonomically sound. Therefore a new assignment was formed. Hulshof wants to produce consumer-products aside from the specialized professional cases they make nowadays. The new assignment is to develop a business suitcase which is allowed in planes as carry-on. The product must have a unique feature to have business potential.

Research has been done to see what kind of features could be added to the design that would benefit business travelers. This research consists of internet research and interviews. The conclusion is that a big problem for business travelers is how to take their laptop from the hotel to the office without taking the entire suitcase. Nowadays business suitcases have an integrated laptop compartment. But business travelers do not want to take all of their luggage to the office. Many people therefore take a separate bag with them to put the laptop in when they go from the hotel to the office.

The solution is to integrate a compartment which is suitable for a laptop bag instead of just a laptop. This bag would hold all of the items that the business traveler needs on location. The bag can be taken out at any time and can be put inside the suitcase when boarding a plane. The suitcase with laptop bag is small enough to be taken into the plane as carry-on luggage.

Apart from that unique feature the suitcase optimizes comfort and space. Big wheels (10 cm diameter) ensure a comfortable ride and a newly developed trolley system enlarges the usable space within the suitcase by putting the trolley rods on the sides of the suitcase instead of the middle. Hulshof can produce this suitcase and sell it at a reasonable price.

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<sup>1</sup> Janneck, M.M.M. "Ergonomics To Go: Designing The Mobile Workspace." *International Journal of Human-Computer Interaction*, vol. 9, no. 1, 1 Jan. 2017, pp. 1–11., [www.tandfonline-com.ezproxy2.utwente.nl/doi/full/10.1080/10447318.2017.1413057](http://www.tandfonline-com.ezproxy2.utwente.nl/doi/full/10.1080/10447318.2017.1413057).

