LAST MILE LOGISTICS REQUIREMENTS ON 2^{RY} E-COMMERCE PACKAGING

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Abstract—With the rising trend of buying products on the internet, new supply chain requirements have appeared, but these changes are taking place faster than the improvements in the packaging solutions.

Who hasn't bought a product on the internet and received a package at home that was way bigger than expected? The surprise continues when opening it and seeing that a big percentage of the package is just air or extra filling material. According to a survey, 40% of the online deliveries come in packaging too big and the 72% of the surveyed people think that the retailers use too much packaging for the online orders. The main explanation for this is that, in general, e-commerce companies tend to purchase boxes of few different measurements even the variety of products they offer have a wide range of different sizes. The irrational size of the packaging might be what surprises more the consumer at first, but there are other packaging criteria that can present a low performance like product protection, or others that simply are not present like re-use capability, among others.

E-commerce and packaging experts state that packaging development has a low priority in the rapidly growing world of e-commerce. As e-commerce keeps growing, and it is expected that it will continue doing so, more focus on the packaging development will be necessary as consumers are becoming more demanding. Improving e-commerce packaging can increase the value of the packaging, the product and even the brand. At the same time, the benefits for the environment can be numerous as packaging requirements like re-use capability,

protection or volume & weight efficiency are directly related with it.

Taking all of this into account, there is a question that comes up: What packaging requirements have more importance for an e-commerce company when selecting the packaging solutions for their products? The master thesis "*Secondary e-commerce packaging requirements analysis in the LML: Application to CDON's case*" addresses this topic and uses the company CDON as an example of how a leading e-commerce company deals with this matter.

This case study brought up that packaging requirement with most weight when selecting packaging solutions is the cost of the packaging. Other requirements like product protection and handleability are on the focus as well but always limited by the packaging cost. In addition, the performance of the company's packaging solutions is evaluated showing a concerning result of an average volume utilization of just the 63% of the package. Also, some incentives, barriers and trade-offs for changing to more logistically efficient the current company's packaging solutions are presented.