A Study of Strategy for Sustainable Design from Application of Product Service System-City Bike As Example

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ABSTRACT

“ Sustainable ” is a very popular and conversational subject in the corporate world nowadays. The idea is observable in their corporate management and product development. Technology development and industrial revolution not only provide human beings luxury living quality but also causes global environmental problems and natural resources crisis on earth. European Union recycle branch ’ s policies emerge gradually which advocates “ Reduce、Reuse、Recycle ” resources to promote resources usage sufficiency. This will definitely become a new economic and life trend. The Product System Service (PSS) is a way to provide a complete products and services to satisfy the customers ’ needs. Reduce the quantity of the products will increase the usage of resources becoming more adequate as well as creating a closed loop for the sacred materials. The servicizing concept creates low burden on the environment. This research employs the concept of PSS to last a substantial amount of time. It also utilizes Analytic Network Process (ANP) to examine PSS ’ s categories of services and Life Cycle Assessment (LCA) to analysis its subsequence importance to be the sustainable design of this research. Modified Delphi Method will inspect PSS ‘ s application of city bikes ’ sustainable design guidance. Moreover, it will develop a sustainable design evaluation guidance and evaluation sheet to make sure the achievement of PSS ’ s goals. Finally, to accomplish the development of PSS ’ s sustainable design and application strategy. By employing PSS, improve LCA ’ s quality during its steps. This will assist and ensure the goals of PSS being achieved while providing a strategy for corporations to follow. As a result, PSS will become a continued service that reduces risks and increases profit, a brand new economic system.

Keywords : Product service system (PSS) ; sustainable design ; product development strategy ; city bike

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