In the approach to game theory which emphasizes the social choice aspects, the primitive notion is a game form which represents the underlying power structure in the choice problem considered, modelled as a simple game or an effectivity function. Adding individuals' preferences will gives rise to games to which the solutions of game theory may apply. There is by now a consideralbe literature on cores and bargaining sets of effectivity functions. We consider the problem of extending the notion of a Shapley value to the context of simple games and effectivity functions; here we need to specify what should be considered a solution of an effectivity function and to extend the fundamental notion of additivity to this context.